

XX (LUDW-) LUDWIG INST CANCER RES.
PA (UYHE-) UNIV HELSINKI LICENSING LTD.
XX
PI Eriksson U, Aase K, Lee X, Ponten A, Uutela M, Alitalo K;
PI Oestman A, Heldin C, Betscholz C;
XX
DR WPI: 2000-292954/25.
DR N-PSDB: AAA12524.
XX
PT Novel DNA encoding PDGF-C useful to stimulate or enhance proliferation,
PT differentiation, growth and motility of cells expressing the PDGF-C
PT receptor -
XX
PS Disclosure: Fig 4: 135pp; English.
XX
CC The present sequence represents a human platelet-derived growth factor C
CC (PDGF-C) (formally designated VEGF-F) fragment. PDGF-C polypeptides have
CC the ability to stimulate and enhance proliferation or differentiation,
CC and/or growth or motility of cells expressing a PDGF-C receptor.
CC PDGF-C polypeptides can be used in pharmaceuticals for promoting cell
CC proliferation, preferably in combination with one other growth factor
CC and heparin. Pharmaceuticals comprising PDGF-C polypeptides can also
CC be used for stimulating connective tissue or wound healing. The
CC PDGF-C polypeptide can be enzymatically processed to generate the active
CC truncated form of PDGF-C and used to regulate the receptor-binding
CC specificity of PDGF-C. PDGF-C can also be used to promote fibroblast
CC mitogenesis in a mammal and to induce PDGF alpha receptor activation.
CC PDGF-C antagonists can be used to inhibit tumour growth of a tumour
CC expressing PDGF-C in a mammal. Specific types of human tumours, e.g.
CC choriocarcinoma, Wilms tumour, megakaryoblastic leukaemia, lung carcinoma
CC and erythroleukemia, can be identified by testing for expression of
CC PDGF-C. PDGF-C antagonists can also be used to inhibit tissue
CC remodelling during invasion of tumour cells into a normal population of
CC cells. Antagonists can also be used to treat fibrotic conditions,
CC especially found in the lung, kidney or liver.
XX
SQ Sequence 318 AA;

Query Match 100.0%; Score 666; DB 21; Length 318;
Best Local Similarity 100.0%; Pred. No. 5e-62;
Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 AFVGRKSRVVDLNLITTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNGCA 60
Db 199 afvgrksrvvdlnlitteevrlyscprnfsvsireelkrttdtfwpgccllvkrcgngca 258
QY 61 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVGRGLHKSITDVALEHHEECDCVCRGSTGG 120
Db 259 cclhncnecqvpksvtkkyhevlqlrpkgtvgrglhksitdvalhehecdecvcrgstgg 318

RESULT 2
AAB58438
ID AAB58438 standard; Protein; 339 AA.
XX
AC AAB58438;
XX
XX 14-MAR-2001 (first entry)
XX
XX Lung cancer associated polypeptide sequence SEQ ID 776.
XX
KW Human; lung cancer associated protein; neuroprotective; cytostatic;
KW cardioactive; immunomodulatory; muscular active; vulnerary;
KW gastrointestinal; nephrotropic; antiinfective; gynecological;
KW antibacterial; diagnosis; neural disorder; immune disorder; reproductive;
KW proliferative disorder; wound healing; infectious disease.
XX
OS Homo sapiens.
XX
PN WO200055180-A2.
XX

PD 21-SEP-2000.
XX
PF 08-MAR-2000; 2000WO-US05918.
XX
PR 12-MAR-1999; 99US-0124270.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (ROSE/) ROSEN C A.
XX
PI Ruben SM;
XX
DR WPI: 2000-587514/55.
DR N-PSDB: AAF18314.
XX
PT Lung cancer associated gene sequences, referred to as lung cancer
PT antigens, useful for treatment, prevention, and diagnosis of disorders
PT such as lung cancer -
XX
PS Claim 11; Page 1305-1306; 1425pp; English.
XX
CC Polynucleotide sequences AAF17982 - AAF18424 encode human lung cancer
CC associated proteins represented in AAB58106 - AAB58548. Lung cancer
CC associated proteins and polynucleotide sequences, their agonists, and
CC antagonists may have neuroprotective; cytostatic; cardioactive;
CC immunomodulatory; muscular active general; vulnerary; gastrointestinal
CC general; nephrotropic; antiinfective; gynecological; or antibacterial
CC activity. The invention also includes antibodies specific for the
CC protein or polynucleotide sequences. The lung cancer associated
CC polynucleotide sequences may be used for detection of lung cancer,
CC chromosome identification, as chromosome markers, and for numerous other
CC diagnostic or research purposes. The proteins may be used to treat
CC disorders such as neural, immune, muscular, reproductive,
CC gastrointestinal, pulmonary, cardiovascular, renal, and proliferative
CC disorders. The proteins may also be used in the treatment of wounds and
CC infectious diseases. Polynucleotide sequences AAF18425 - AAF18433 and
CC peptide AAB58549 are used in the course of the invention for the
CC identification and characterisation of the polynucleotide and protein
CC sequences.
XX
SQ Sequence 339 AA;

Query Match 100.0%; Score 666; DB 21; Length 339;
Best Local Similarity 100.0%; Pred. No. 5.4e-62;
Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 AFVGRKSRVVDLNLITTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNGCA 60
Db 220 afvgrksrvvdlnlitteevrlyscprnfsvsireelkrttdtfwpgccllvkrcgngca 279
QY 61 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVGRGLHKSITDVALEHHEECDCVCRGSTGG 120
Db 280 cclhncnecqvpksvtkkyhevlqlrpkgtvgrglhksitdvalhehecdecvcrgstgg 339

RESULT 3
AAAY33679
ID AAAY33679 standard; Protein; 345 AA.
XX
XX AAAY33679;
AC
XX
DT 11-JAN-2000 (first entry)
XX
XX Human VEGF-E protein.
XX
DE VEGF-E; human; vascular endothelial cell growth factor; wound repair;
KW treatment; cardiovascular disorder; endothelial disorder; therapy;
KW tissue generation; regeneration; cardiac hypertrophy; cancer; detection;
KW angiogenic disorder; age-related macular degeneration; vascular disease;
KW neovascularization; tumor; gene mapping.
XX
OS Homo sapiens.
XX

AC AAB44322;
XX 08-FEB-2001 (first entry)
XX Human PRO200 (UNQ174) protein sequence SEQ ID NO:488.
XX Human; secreted protein; transmembrane protein; PRO; EST; cytotstatic;
KW expressed sequence tag; detection; cancer.
XX Homo sapiens.
XX WO200053756-A2.
XX 14-SEP-2000.
XX 18-FEB-2000; 2000WO-US04341.
XX 08-MAR-1999; 99WO-US05028.
XX 12-MAR-1999; 99US-0123957.
XX 29-MAR-1999; 99US-0126773.
XX 21-APR-1999; 99US-0130232.
XX 28-APR-1999; 99US-0131445.
XX 14-MAY-1999; 99US-0134287.
XX 23-JUN-1999; 99US-0141037.
XX 26-JUL-1999; 99US-0145698.
XX 29-OCT-1999; 99US-0162506.
XX 30-NOV-1999; 99WO-US28313.
XX 02-DEC-1999; 99WO-US28551.
XX 02-DEC-1999; 99WO-US28565.
XX 16-DEC-1999; 99WO-US30095.
XX 30-DEC-1999; 99WO-US31243.
XX 30-DEC-1999; 99WO-US31274.
XX 05-JAN-2000; 2000WO-US00219.
XX 06-JAN-2000; 2000WO-US00277.
XX 06-JAN-2000; 2000WO-US00376.
XX (GETH) GENENTECH INC.
XX Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
PI Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
PI Goddard A, Godowski PJ, Grimaldi CJ, Gurney AL, Hillan KJ;
PI Kiljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA;
PI Shelton DL, Stewart TA, Tumas D, Williams PM, Wood WI;
XX WPI: 2000-611443/58.
XX N-PSDB: AAC78582.
XX Novel PRO polypeptides and polynucleotides used in detection methods,
PT to target bioactive molecules to specific cells, and to modulate
PT cellular activities.
XX Claim 12; Fig 207; 636pp; English.
XX AAC78458 to AAC78599 represent polynucleotide and EST (expressed
CC sequence tag) sequences which encode secreted or transmembrane PRO
CC polypeptides. The PRO polynucleotides and polypeptides have cytostatic
CC activity. The polynucleotides and polypeptides can be used for detecting
CC the presence of PRO polypeptides in samples, for linking bioactive
CC molecules to cells and for modulating biological activities of cells,
CC using the polypeptides for specific targeting. The polypeptide targeting
CC can be used to kill the target cells, e.g. for the treatment of cancers.
CC The polypeptide pairs provide specific targeting of bioactive molecules
CC to cells. AAC78600 to AAC78987 represent PCR primers and probes used in
CC the isolation of the PRO polynucleotide sequences.
XX Sequence 345 AA;
XX
XX Query Match 100.0%; Score 666; DB 21; Length 345;
XX Best Local Similarity 100.0%; Pred. No. 5.5e-62;
XX Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX 1 AFVGRKSRVVDNLLTEEVRLYCTPRNFSVIREELKRTDTIFWPGCLLVKRCGNCA 60

Db 226 afvgrksrvvdnlnteervlyscprnfsvireelkrttdifwpgcllvkrcgnca 285
Qy 61 CCLHNCNECQVPSKVTKKYHEVLQLRPKTGVRGLHKSITDVALEHHEECDCVCRGSGG 120
Db 286 cclhncnecqvpstvktkkyhevlqlrpkgtvrglhksitdvalheecdcvcrgstgg 345

RESULT 9
AAB10633
ID AAB10633 standard; Protein; 345 AA.
XX
XX AAB10633;
XX
XX 19-JAN-2001 (first entry)
XX
XX Human RACE generated VEGF-X protein.
XX
XX VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth.
XX
XX Homo sapiens.
XX
XX WO200037641-A2.
XX
XX 29-JUN-2000.
XX
XX 21-DEC-1999; 99WO-US30503.
XX
XX 22-DEC-1998; 98GB-0028377.
XX 18-MAR-1999; 99US-0124967.
XX 08-NOV-1999; 99US-0164131.
XX
XX (JANC) JANSSEN PHARM NV.
XX
XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JH, Gosiewska A;
PI Dhanaraj SN, Xu J;
XX WPI: 2000-442669/38.
XX N-PSDB: AAA71951.
XX
XX New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX
XX Disclosure; Fig 6; 127pp; English.
XX
XX This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (Iia) which has
CC vulnery, cytostatic, antirheumatic, antidiabetic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence represents the RACE generated human VEGF-X
CC protein described in the method of the invention.
XX
XX Sequence 345 AA;
XX

Query Match 100.0%; Score 666; DB 21; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.5e-62;

Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AFVFGKSRVVDNLNLTTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
|||||
Db 226 afvfgkrrvvdnlnteervlyscprnfsvsireelkrttdtlfwpgcllvkrcgnc 285

QY 61 CCLHNCNECQVPSKVTKKYHEVLQLRPKTGVRLHKSITDVALEHHEECDCVCRGSGTG 120
|||||
Db 286 cclhncnecqvpkskvtkkyhevlqlrpkgtvrglhksltdvalehheecdcvcrsgtg 345

RESULT 10
AAB10634

ID AAB10634 standard; Protein; 345 AA.

AC AAB10634;

DT 19-JAN-2001 (first entry)

DE Human VEGF-X homologue protein.

DE XX

KW VEGF-X; vascular endothelial growth factor; human; vulnary; cytostatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth.

OS Homo sapiens.

XX WO200037641-A2.

PN 29-JUN-2000.

PD 21-DEC-1999; 99WO-US30503.

PF 22-DEC-1998; 98GB-0028377.
PR 18-MAR-1999; 99US-0124967.
PR 08-NOV-1999; 99US-0164131.

XX (JANC) JANSSEN PHARM NV.

PA Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
PI Dhanaraj SN, Xu J;
PI WPI: 2000-442669/38.
DR N-PSDB; AAA71952.

XX New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX Disclosure; Fig 7; 127pp; English.

XX This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
CC vulnary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence represents the human VEGF-X protein
CC homologue described in the method of the invention.

XX Sequence 345 AA;

Query Match 100.0%; Score 666; DB 21; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.5e-62;
Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AFVFGKSRVVDNLNLTTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
|||||
Db 226 afvfgkrrvvdnlnteervlyscprnfsvsireelkrttdtlfwpgcllvkrcgnc 285

QY 61 CCLHNCNECQVPSKVTKKYHEVLQLRPKTGVRLHKSITDVALEHHEECDCVCRGSGTG 120
|||||
Db 286 cclhncnecqvpkskvtkkyhevlqlrpkgtvrglhksltdvalehheecdcvcrsgtg 345

RESULT 11
AAB10635

ID AAB10635 standard; Protein; 345 AA.

AC AAB10635;

DT 19-JAN-2001 (first entry)

DE Human VEGF-X protein #1 isolated from clones 4 and 7.

DE XX

KW VEGF-X; vascular endothelial growth factor; human; vulnary; cytostatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth.

OS Homo sapiens.

XX WO200037641-A2.

PN 29-JUN-2000.

PD 21-DEC-1999; 99WO-US30503.

PF 22-DEC-1998; 98GB-0028377.
PR 18-MAR-1999; 99US-0124967.
PR 08-NOV-1999; 99US-0164131.

XX (JANC) JANSSEN PHARM NV.

PA Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
PI Dhanaraj SN, Xu J;
PI WPI: 2000-442669/38.
DR N-PSDB; AAA71955.

XX New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX Disclosure; Fig 9; 127pp; English.

XX This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
CC vulnary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence represents the human VEGF-X protein
CC isolated from clones 4 and 7 described in the method of the invention.

XX Sequence 345 AA;

Query Match 100.0%; Score 666; DB 21; Length 345;
 Best Local Similarity 100.0%; Pred. No. 5.5e-62;
 Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AFVFGKSRVVDNLNLTTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGGNCA 60
 |||||
 Db 226 afvfgkrsvvdnlntteevrlyscprnfsvsireelkrtdtifwpgcllvkrcggnc 285
 |||||

Qy 61 CCLHNCNECQVPSKVTYKHYEVLQRPKTGVRGLHKSITDVALEHHEEDCDVCRGSGTG 120
 |||||
 Db 286 cclhncnecqvpstkkyhevlqlrpkgtgvrghksitdvalenheecdcvcrgstg 345
 |||||

RESULT 12

AAB10636
 ID AAB10636 standard; Protein; 345 AA.
 AC AAB10636;
 XX
 DT 19-JAN-2001 (first entry)
 DE Human VEGF-X protein #2 isolated from clones 4 and 7.
 XX
 KW VEGF-X; vascular endothelial growth factor; human; vulnerary; cytotstatic;
 KW antiarthritis; antiprosoratic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth.
 XX
 OS Homo sapiens.
 PN WO200037641-A2.
 XX
 PD 29-JUN-2000.
 XX
 PF 21-DEC-1999; 99WO-US30503.
 XX
 PR 22-DEC-1998; 98GB-0028377.
 PR 18-MAR-1999; 99US-0124967.
 PR 08-NOV-1999; 99US-0164131.
 XX
 PA (JANC) JANSSEN PHARM NV.
 XX
 PI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
 PI Dhanaraj SN, Xu J;
 XX
 DR WPI; 2000-442669/38.
 DR N-PSDB; AAA71955.
 XX
 PT New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
 XX
 PS Claim 1; Fig 10; 127pp; English.
 XX
 CC This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
 CC vulnerary, cytotstatic, antirheumatic, antiarthritis, antipsoriatic and
 CC antidiabetic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood
 CC vessels, growth and development of tissues, tissue regeneration and organ
 CC for tissue repair in a subject. The products of the invention are useful
 CC for preparing medicaments for treating wounds such as dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns and to promote
 CC skin graft growth, tissue repair, proliferation of new blood vessels,

CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence represents the human VEGF-X protein
 CC isolated from clones 4 and 7 described in the method of the invention.

XX Sequence 345 AA;

Query Match 100.0%; Score 666; DB 21; Length 345;
 Best Local Similarity 100.0%; Pred. No. 5.5e-62;
 Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AFVFGKSRVVDNLNLTTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGGNCA 60
 |||||
 Db 226 afvfgkrsvvdnlntteevrlyscprnfsvsireelkrtdtifwpgcllvkrcggnc 285
 |||||

Qy 61 CCLHNCNECQVPSKVTYKHYEVLQRPKTGVRGLHKSITDVALEHHEEDCDVCRGSGTG 120
 |||||
 Db 286 cclhncnecqvpstkkyhevlqlrpkgtgvrghksitdvalenheecdcvcrgstg 345
 |||||

RESULT 13

AAB10644
 ID AAB10644 standard; Protein; 345 AA.
 AC AAB10644;
 XX
 DT 19-JAN-2001 (first entry)
 DE Human VEGF-X protein #4.
 XX
 KW VEGF-X; vascular endothelial growth factor; human; vulnerary; cytotstatic;
 KW antiarthritis; antiprosoratic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth.
 XX
 OS Homo sapiens.
 PN WO200037641-A2.
 XX
 PD 29-JUN-2000.
 XX
 PF 21-DEC-1999; 99WO-US30503.
 XX
 PR 22-DEC-1998; 98GB-0028377.
 PR 18-MAR-1999; 99US-0124967.
 PR 08-NOV-1999; 99US-0164131.
 XX
 PA (JANC) JANSSEN PHARM NV.
 XX
 PI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
 PI Dhanaraj SN, Xu J;
 XX
 DR WPI; 2000-442669/38.
 DR N-PSDB; AAA71990.
 XX
 PT New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
 XX
 PS Disclosure; Fig 30B; 127pp; English.
 XX
 CC This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
 CC vulnerary, cytotstatic, antirheumatic, antiarthritis, antipsoriatic and
 CC antidiabetic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood
 CC vessels, growth and development of tissues, tissue regeneration and organ
 CC for tissue repair in a subject. The products of the invention are useful

CC for preparing medicaments for treating wounds such as dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns and to promote
 CC skin graft growth, tissue repair, proliferation of new blood vessels,
 CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence represents a human VEGF-X protein
 CC described in the method of the invention.

SQ Sequence 345 AA;

Query Match 100.0%; Score 666; DB 21; Length 345;
 Best Local Similarity 100.0%; Pred. No. 5.5e-62;
 Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 AFVGRKSRVVDNLNLTTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
 Db 226 afvgrksrvvdnlnteervlyscprnfsvsireelkrtdtifwpgcllvkrcgnca 285
 QY 61 CCLHNCNECQCVPKSKTKYHEVLQRLPKTGVRGLHKSITDVALEHHEECDCVCRGSTGG 120
 Db 286 cclhncnecqcvpskvtkkyhevlqlrpkgtgvrghksltdvalehheecdcvcrgstgg 345

RESULT 14
 AAB10650
 ID AAB10650 standard; Protein; 345 AA.

XX AAB10650;

XX 19-JAN-2001 (first entry)

XX Human 990126veg protein.

XX VEGF-X; vascular endothelial growth factor; human; vulnary; cytostatic;
 KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth.

XX Homo sapiens.

XX WO200037641-A2.

XX 29-JUN-2000.

XX 21-DEC-1999; 99WO-US30503.

XX 22-DEC-1998; 98GB-0028377.

XX 18-MAR-1999; 99US-0124967.

XX 08-NOV-1999; 99US-0164131.

XX (JANC) JANSSEN PHARM NV.

XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;

XX Dhanaraj SN, Xu J;

XX WPI; 2000-442669/38.

XX New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -

XX Disclosure; Fig 11; 127pp; English.

XX This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
 CC vulnary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
 CC antiangiogenic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood

CC vessels, growth and development of tissues, tissue regeneration and organ
 CC and tissue repair in a subject. The products of the invention are useful
 CC for preparing medicaments for treating wounds such as dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns and to promote
 CC skin graft growth, tissue repair, proliferation of new blood vessels,
 CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence represents the human 990126veg protein
 CC used to illustrate the method of the invention.

SQ Sequence 345 AA;

Query Match 100.0%; Score 666; DB 21; Length 345;
 Best Local Similarity 100.0%; Pred. No. 5.5e-62;
 Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AFVGRKSRVVDNLNLTTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
 Db 226 afvgrksrvvdnlnteervlyscprnfsvsireelkrtdtifwpgcllvkrcgnca 285
 QY 61 CCLHNCNECQCVPKSKTKYHEVLQRLPKTGVRGLHKSITDVALEHHEECDCVCRGSTGG 120
 Db 286 cclhncnecqcvpskvtkkyhevlqlrpkgtgvrghksltdvalehheecdcvcrgstgg 345

RESULT 15
 AAB10651
 ID AAB10651 standard; Protein; 345 AA.

XX AAB10651;

XX 19-JAN-2001 (first entry)

XX Human VEGF-X protein #3.

XX VEGF-X; vascular endothelial growth factor; human; vulnary; cytostatic;
 KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth.

XX Homo sapiens.

XX WO200037641-A2.

XX 29-JUN-2000.

XX 21-DEC-1999; 99WO-US30503.

XX 22-DEC-1998; 98GB-0028377.

XX 18-MAR-1999; 99US-0124967.

XX 08-NOV-1999; 99US-0164131.

XX (JANC) JANSSEN PHARM NV.

XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;

XX Dhanaraj SN, Xu J;

XX WPI; 2000-442669/38.

XX New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -

XX Claim 72; Fig 12; 127pp; English.

XX This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
 CC vulnary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
 CC antiangiogenic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic

CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence represents the human VEGF-X protein
CC described in the method of the invention.

XX

SQ Sequence 345 AA;

Query Match 100.0%; Score 666; DB 21; Length 345;
Best Local Similarity 100.0%; Pred. No. 5,5e-62;
Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 AFVFGKSRVVDNLTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
226 afvfgkrrvvdnlalteevrlyscprnfsvsireelkrttdtifwpgcllvkrcgnca 285
QY 61 CCLHNCNECQCVPSKVTKYHEVLQLRPKTGVRGLHKSLETDVALEHHECDVCVRGSGG 120
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
286 cclhncnecqcvpskvtkyhevqlrpkgtgvrghksltdvalehhecdvcvrgstgg 345

Search completed: January 15, 2002, 22:14:47
Job time: 1809 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 15, 2002, 22:14:53 ; Search time 24.08 Seconds
(without alignments)
112.143 Million cell updates/sec

Title: US-09-457-066-2_COPY_226_345

Perfect score: 666

Sequence: 1 AFVFGKRSRVVDLNLTEEV.....DVALEHHEDCVCGSTGG 120

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 212252 seqs., 22503292 residues

Total number of hits satisfying chosen parameters: 212252

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued_Patents_AA.*

- 1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep.*
- 2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep.*
- 3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep.*
- 4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep.*
- 5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep.*
- 6: /cgn2_6/ptodata/2/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	119.5	17.9	321	4	US-08-915-795-9
2	119.5	17.9	358	4	US-08-915-795-8
3	115.5	17.3	325	4	US-08-915-795-3
4	115.5	17.3	354	4	US-08-915-795-5
5	108	16.2	190	3	US-08-867-352-25
6	108	16.2	220	6	5175255-4
7	108	16.2	241	1	US-08-387-845-4
8	108	16.2	241	2	US-08-999-811-6
9	108	16.2	241	2	US-08-778-275-4
10	108	16.2	241	2	US-08-824-996-8
11	108	16.2	241	3	US-08-989-251-29
12	108	16.2	241	3	US-09-042-105-6
13	108	16.2	241	3	US-08-867-352-4
14	108	16.2	241	3	US-09-340-250-29
15	108	16.2	241	4	US-08-795-430-54
16	108	16.2	241	5	PCT-US96-09001-9
17	108	16.2	241	6	5194536-15
18	108	16.2	241	6	5219739-15
19	107.5	16.1	256	6	5175255-9
20	105.5	15.8	188	1	US-08-469-427A-11
21	105.5	15.8	188	2	US-08-609-443B-11
22	105.5	15.8	188	2	US-08-569-063C-11
23	105.5	15.8	188	4	US-08-795-430-57
24	105.5	15.8	207	2	US-08-609-443B-15
25	105.5	15.8	207	2	US-08-569-063C-15
26	105	15.8	109	1	US-08-094-079-2
27	105	15.8	109	1	US-08-094-079-3

28	105	15.8	109	2	US-08-804-953-3	Sequence 3, Appli
29	105	15.8	109	3	US-08-691-794-4	Sequence 4, Appli
30	105	15.8	109	5	PCT-US91-02766-18	Sequence 18, Appl
31	105	15.8	109	5	PCT-US93-02612-1	Sequence 1, Appli
32	105	15.8	109	6	5498600-3	Patent No. 5498600
33	105	15.8	119	2	US-08-257-494D-1	Sequence 1, Appli
34	105	15.8	120	6	5428135-2	Patent No. 5428135
35	105	15.8	146	3	US-08-989-251-2	Sequence 2, Appli
36	105	15.8	146	3	US-08-989-251-25	Sequence 25, Appl
37	105	15.8	146	3	US-09-340-250-2	Sequence 2, Appli
38	105	15.8	146	3	US-09-340-250-25	Sequence 25, Appl
39	105	15.8	160	1	US-08-094-079-1	Sequence 1, Appli
40	105	15.8	205	3	US-08-989-251-27	Sequence 27, Appl
41	105	15.8	205	3	US-08-989-251-37	Sequence 37, Appl
42	105	15.8	205	3	US-09-340-250-27	Sequence 27, Appl
43	105	15.8	205	3	US-09-340-250-37	Sequence 37, Appl
44	105	15.8	282	1	US-08-445-847A-1	Sequence 1, Appli
45	104.5	15.7	109	3	US-08-691-794-3	Sequence 3, Appli

ALIGNMENTS

RESULT 1
US-08-915-795-9
; Sequence 9, Application US/08915795
; Patent No. 6235713
; GENERAL INFORMATION:
; APPLICANT: Marc G. ACHEN
; APPLICANT: Andrew F. WILKS
; APPLICANT: Steven A. STACKER
; APPLICANT: Kari ALITALO
; TITLE OF INVENTION: GROWTH FACTOR
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
; STREET: 1200 G Street, NW, Suite 700
; CITY: Washington
; STATE: DC
; COUNTRY: United States of America
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/915,795
; FILING DATE:
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: EVANS, Joseph D.
; REGISTRATION NUMBER: 26,269
; REFERENCE/DOCKET NUMBER: 1064/42983
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 628-8800
; TELEFAX: (202) 628-8844
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 321 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; ORIGINAL SOURCE:
; TISSUE TYPE: Mouse Lung
US-08-915-795-9

Query Match 17.9%; Score 119.5; DB 4; Length 321;
Best Local Similarity 33.3%; Pred. No. 1.6e-05;
Matches 36; Conservative 15; Mismatches 42; Indels 15; Gaps 6;

STATE: DC
COUNTRY: United States of America
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/08/915,795
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, Joseph D.
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEFAX: (202) 628-8844
TELEX: N/A
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 354 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: Human Lung
US-08-915-795-5

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Query Match      17.3%, Score 115.5; DB 4; Length 354;
Best Local Similarity 33.0%; Pred. No. 4,8e-05;
Matches 34; Conservative 14; Mismatches 44; Indels 11; Gaps 5;

QY 13 LNLITEEVRLLSYCTPRNFSVIRREL-KRTDTIWPQGLLVKRCGGNCACLLHNCNEC-Q 70
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 99 LKVIDEEMQRTQCSPRETCVEVASELKGSTNTFFKPCPVNFRCGG---CCNEESLICMN 155

QY 71 CVPKSVYKKYHEVILQLRPKTVGRGLHKLSTDVALEHHEECDCV 113

Db 156 TSTSYISKQLFEISV--PLTSV----PELVFPVKVANTHTGCKCL 192

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RESULT      5
US-08-867-352-25
; Sequence 25, Application US/08867352
; Patent No. 6060273
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: Multicistronic expression units and their use
; NUMBER OF SEQUENCES: 25
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPA)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/867,352
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/387,847
; FILING DATE:
; INFORMATION FOR SEQ ID NO: 25:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 190 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-867-352-25

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Query Match      16.2%; Score 108; DB 3; Length 190;
Best Local Similarity 34.7%; Pred. No. 0.00016;
Matches 42; Conservative 12; Mismatches 35; Indels 32; Gaps 11;

QY  5  GRKSRVVDLNLIT--EEVRLYSCTPRN--FSVSIREELKRTDTIF--WPGCLLVKRCGGN  58
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Db  79  GRRS-----LGSLLTAEPAMIAECKTRTEVFELS--RRLIDRTNANFLWPPPCVEVQRCSG-  132
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QY  59  CACCLHNCNEQCQVPSKVTKKYHVEVLQLRP-----KTGV---RGLHKSLITDVALEHHEECD  111
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
Db  133  --CC--NNRNVCQRTQV-----QLRPVQVRKIEVRKKPIFKRAT-VTLEDHLACK  179
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QY  112  C  112
      |
Db  180  C  180

RESULT          6
5175255-4
; Patent No. 5175255
; APPLICANT: Thomson, Arlen R.; Nicholson, Margery
; TITLE OF INVENTION: METHODS FOR PURIFICATION OF PLATELET-
; DERIVED GROWTH FACTOR
; NUMBER OF SEQUENCES: 9
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/06/25,344
; FILING DATE: 23-MAR-1987
; SEQ ID NO:4
; LENGTH: 220
5175255-4

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	Query Match	16.2%;	Score 108;	DB 6;	Length 220;
	Best Local Similarity	34.7%;	Pred. No. 0.00018;		
	Matches	42;	Mismatches 12;	Gaps 32;	Gaps 11;
Qy	5	GRKSRVDNLNLT--EEVRLYSCTPRN--FSVSIREELKRTDTIF--WPGCLLVKRCGCGN	58		
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Db	58	GRRS-----LGSLLTAEPAMIAECKTRTEVFELS-RRUIDRTNANFLMPPCEVQRCSG-	111		
		: :			
Qy	59	CACCLHNCNECQCVPSPKTKKYHEVLORLP----KTGV---RGLHKSLTIDVALEHHHECD	111		
		: :			
Db	112	--CC--NNRNVCQRPQTQV-----QLRPQVQRKIIEIVRKKKPIFKKAT-VTLIEDHLACK	158		
Qy	112	C	112		
Db	159	C	159		

RESULT 7
US-08-387-845-4
; Sequence 4, Application US/08387845
; Patent No. 5665567
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: Preparation of heterodimeric PDGF-AB using a
; TITLE OF INVENTION: bicistronic vector system in mammalian cells
; NUMBER OF SEQUENCES: 16
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25 (EPA)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/387,845
; FILING DATE:
; CLASSIFICATION: 435
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 241 amino acids
; TYPE: amino acid

Query Match 16.2%; Score 108; DB 2; Length 241;
Best Local Similarity 34.7%; Pred. No. 0.0002;

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; TITLE OF INVENTION: Factor 2
; FILE REFERENCE: PF112D1
; TITLE OF INVENTION: polynucleotides encoding vascular Endothelial Growth
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Query Match	16.2%;	Score 108;	DB 3;	Length 241;
Best Local Similarity	34.7%;	Pred. No. 0.0002;		

Query Match 16.2%; Score 108; DB 3; Length 241;
Best Local Similarity 34.7%; Pred. No. 0.0002;
Matches 42; Conservative 12; Mismatches 35; Indels

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Query Match      16.2%  Score 108;  DB 3;  Length 241;
Best Local Similarity 34.7%;  Pred. No. 0.0002;
Matches 42;  Conservative 12;  Mismatches 35;  Indels 32;  Gaps 11;

QY      5  GKRSRVYDLNLT--EEVRLYSCTPRN--FSVSIREELKRTDTIF--WPGCLLVKRCGGN  58
      |||  |  ||  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
Db      79  GRRS-----LGSLLTAEPAMIAECKTRTEVFEIS--RRLIDRTNANFLWPPCVCVEQRCSG- 132

QY      59  CACCLHNCNOCQVPSTKTKYHEVLQRP-----KTGV--RGLHKLSLTDVALEHHEECD 111
      ||  ||  ||  ||  ||  ||  ||  |  |  |  |  |  |  |  |  |  |  |  |
Db      133 --CG--NNRNVCQRTQV-----QLRPQVQRKIEIVRKKPIFKKAT--VTLEDHLACK 179

QY      112  C 112
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Db      180  C 180

RESULT 14
US-09-340-250-29
; Sequence 29, Application US/09340250
; Patent No. 6083723
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; TITLE OF INVENTION: PROTEINS IN YEAST
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
; STREET: 3605 Glenwood Ave. Suite 310
; CITY: Raleigh

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3

Search completed: January 15, 2002, 22:15:41
Job time: 48 sec

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Date: Jan 15, 2002 11:05 PM

About: Results were produced by the GenCore software, version 4.5,
Copyright (c) 1993-2000 CompuGen Ltd.

Command line parameters:

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-QGAPEXT=0.050 -XGAPOP=10.000 -XGAPEXT=0.500 -FGAPOP=6.000
-FGAPEXT=7.000 -YGAPOP=10.000 -YGAPEXT=0.500 -DELOP=6.000
-DELEXT=7.000 -START=1 -MATRIX=blosum62 -TRANS=human40.cdi
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-ALIGN=15 -MODE=LOCAL -OUTFMT=pfs -NORM=ext -HEAPSIZ=500
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-NO_XLPRY -WAIT -THREADS=1

Search information block:

Query: US-09-457-066-2_COPY_226_345

Query length: 120

Database: GenEmbl.*

Database sequences: 1472140

Search time (sec): 1337.100000

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Sequence	Strd	Orig	zScore	EScore	Len	Documentation
gb_pat:AX027935	+	666.00	1279.06	5.7e-63	1035	AX027935 Sequence 3 from Paten
gb_pr:AX028032	+	666.00	1279.06	5.7e-63	1035	AX028032 Sequence 3 from Paten
gb_pat:AX044518	+	666.00	1274.53	1.0e-62	1760	AX044518 Sequence 32 from Paten
gb_pat:AX118785	+	666.00	1274.53	1.0e-62	1760	AX118785 Sequence 1 from Paten
gb_pr:AF260738	+	666.00	1274.32	1.1e-62	1804	AF260738 Homo sapiens platelet
gb_pr:AB033831	+	666.00	1274.26	1.1e-62	1817	AB033831 Homo sapiens hSCDGF m
gb_pr:AF244813	+	666.00	1272.81	1.3e-62	2152	AF244813 Homo sapiens platelet
gb_pat:AX047650	+	666.00	1270.42	1.7e-62	2849	AX047650 Sequence 9 from Paten
gb_pr:AF091434	+	666.00	1269.96	1.8e-62	3007	AF091434 Homo sapiens secretin
gb_ro:AF117608	+	624.00	1189.29	5.7e-58	2692	AF117608 Mus musculus fallotet
gb_ro:AF266467	+	624.00	1187.03	7.7e-58	3512	AF266467 Mus musculus platelet
gb_pat:AX044520	+	624.00	1186.88	7.8e-58	3571	AX044520 Sequence 34 from Paten
gb_pat:AX118787	+	624.00	1186.88	7.8e-58	3571	AX118787 Sequence 3 from Paten
gb_ro:AB033830	+	611.00	1171.54	5.6e-57	1116	AB033830 Rattus norvegicus rsc
gb_ro:AF286725	+	608.00	1166.33	1.1e-56	1038	AF286725 Mus musculus platelet
gb_ov:AB033829	+	585.00	1117.56	5.7e-54	1675	AB033829 Gallus gallus SCDGF m
gb_pat:AX027968	+	513.00	992.94	5.0e-47	279	AX027968 Sequence 36 from Paten
gb_pat:AX027989	+	513.00	992.94	5.0e-47	279	AX027989 Sequence 57 from Paten
gb_sv:AX028055	+	513.00	992.94	5.0e-47	279	AX028055 Sequence 35 from Paten
gb_sv:AX028086	+	513.00	992.94	5.0e-47	279	AX028086 Sequence 57 from Paten
gb_pat:AX027967	+	472.00	913.85	1.3e-42	261	AX027967 Sequence 35 from Paten
gb_pat:AX027988	+	472.00	913.85	1.3e-42	261	AX027988 Sequence 56 from Paten
gb_pat:AX028064	+	472.00	913.85	1.3e-42	261	AX028064 Sequence 35 from Paten
gb_sv:AX028085	+	472.00	913.85	1.3e-42	261	AX028085 Sequence 56 from Paten
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gb_pat:AX027992	+	390.00	754.48	9.5e-34	262	AX027992 Sequence 60 from Paten
gb_sv:AX028066	+	390.00	754.48	9.5e-34	262	AX028066 Sequence 37 from Paten
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gb_pat:AX027973	+	351.00	679.74	1.4e-29	232	AX027973 Sequence 41 from Paten
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gb_sv:AX028070	+	351.00	679.74	1.4e-29	232	AX028070 Sequence 41 from Paten
gb_sv:AX028099	+	351.00	679.74	1.4e-29	232	AX028099 Sequence 70 from Paten
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gb_pat:AX164748	+	324.00	613.90	6.4e-26	1113	AX164748 Sequence 5 from Paten
gb_ro:AF335583	+	324.00	613.90	6.4e-26	1113	AF335583 Mus musculus platelet
gb_ro:AB052170	+	324.00	612.03	8.2e-26	1386	AB052170 Rattus norvegicus rsc
gb_pr:AB033832	+	324.00	611.78	8.4e-26	1428	AB033832 Homo sapiens hSCDGF-R
gb_pat:AX044538	+	324.00	611.52	8.7e-26	1472	AX044538 Sequence 52 from Paten

gb_pat:AX164746 + 324.00 610.88 9.5e-26 1587 ! AX164746 Sequence 3 from Pa
gb_pat:AX164744 + 324.00 609.67 1.1e-25 1828 ! AX164744 Sequence 1 from Pa
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seq_documentation_block:

LOCUS AX027935 1035 bp DNA PAT 16-SEP-2000
DEFINITION Sequence 3 from Patent WO0037641.
ACCESSION AX027935
VERSION AX027935.1 GI:10188752
KEYWORDS
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE 1 (bases 1 to 1035)
AUTHORS Gordon,R.D., Dijkmans,J.J., Sprengel,J.J., Yon,J.R., Xu,J.,
Gosiewska,A. and Dhanaraj,S.N.
TITLE Vascular endothelial growth factor-x
JOURNAL Patent: WO 0037641-A 3 29-JUN-2000;
GORDON ROBERT DOUGLAS (BE) ; DIJKMANS JOSIENA JOHANNA HUBER (BE) ;
JANSSEN PHARMACEUTICA NV (BE) ; SPRENGEL JORG JURGEN (BE) ; YON
JEFFREY ROLAND (BE) ; XU JEAN (US) ; GOSIEWSKA ANNA (US) ; DHANARAJ
SRIDEVI NAIDU (US)
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ACCESSION AX028032
VERSION AX028032.1 GI:10188844
KEYWORDS
SOURCE human.

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 1035)
AUTHORS Gordon,R.D., Dijkmans,J.J., Sprengel,J.J., Yon,J.R., Xu,J.,
Gosiewska,A. and Dhanaraj,S.N.
TITLE Vascular endothelial growth factor-x
JOURNAL Patent: WO 0037641-A 29-JUN-2000;
GORDON ROBERT DOUGLAS (BE); DIJKMANS JOSIENA JOHANNA HUBER (BE);
JANSSEN PHARMACEUTICA NV (BE); SPRENGEL JORG JURGEN (BE); YON
JEFFREY ROLAND (BE); XU JEAN (US); GOSIEWSKA ANNA (US); DHANARAJ
SRIDEVI NAIDU (US)

FEATURES
Location/Qualifiers
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ACCESSION AX044518
VERSION AX044518.1 GI:11343373
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SOURCE human.

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 1760)
AUTHORS Gilbert,T., Hart,C.E., Sheppard,P.O. and Gilbertson,D.G.
TITLE Growth factor homolog zveg14
JOURNAL Patent: WO 0066736-A 32 09-NOV-2000;
ZymoGenetics, Inc. (US)

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LOCUS AX118785 1760 bp DNA PAT 11-MAY-2001
DEFINITION Sequence 1 from Patent WO0128586.
ACCESSION AX118785
VERSION AX118785.1 GI:14035734
KEYWORDS
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 1760)
AUTHORS Gilbertson,D.G.
TITLE Method of treating fibrosis
JOURNAL Patent: WO 0128586-A 1 26-APR-2001;
ZymoGenetics, Inc. (US)
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LOCUS AF260738 1804 bp mRNA PRI 17-JUL-2001
DEFINITION Homo sapiens platelet-derived growth factor c (PDGFC) mRNA,
complete cds.
ACCESSION AF260738
VERSION AF260738.1 GI:14009503
KEYWORDS
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 1804)
AUTHORS Gilbertson,D.G., Duff,M.E., West,J.W., Kelly,J.D., Sheppard,P.O.,
Hofstrand,P.D., Gao,Z., Shoemaker,K., Bukowski,T.R., Moore,M.,
Feldhaus,A.L., Humes,J.M., Palmer,T.E. and Hart,C.E.
TITLE Platelet-derived Growth Factor C (PDGF-C), a Novel Growth Factor
That Binds to PDGF alpha and beta Receptor
JOURNAL J. Biol. Chem. 276 (29), 27406-27414 (2001)
MEDLINE 21347863
PUBMED 11297552
REFERENCE 2 (bases 1 to 1804)
AUTHORS Gao,Z., Hart,C., Piddington,C., Sheppard,P., Shoemaker,K.,
Gilbertson,D., West,J. and O'Hara,P.J.
TITLE Direct Submission
JOURNAL Submitted (26-APR-2000) Biomolecular Informatics, ZymoGenetics,
Inc., 1201 Eastlake Avenue East, Seattle, WA 98102, USA
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LOCUS AB033831 1817 bp mRNA PRI 26-JUL-2000
 DEFINITION Homo sapiens hSCDGF mRNA for spinal cord-derived growth factor, complete cds.
 ACCESSION AB033831
 VERSION AB033831.1 GI:9392293
 KEYWORDS spinal cord-derived growth factor; scdGF gene.
 SOURCE Homo sapiens
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 1 (sites)
 Hamada, T., Ui-Tei, K. and Miyata, Y.
 A novel gene derived from developing spinal cords, SCDGF, is a unique member of the PDGF/VEGF family(1)
 FEBS Lett. 475 (2), 97-102 (2000)
 JOURNAL MEDLINE 20317014
 REFERENCE 2 (bases 1 to 1817)
 Hamada, T., Ui-Tei, K. and Miyata, Y.
 Direct Submission
 TITLE Submitted (25-OCT-1999) to the DDBJ/EMBL/GenBank databases.
 JOURNAL Tsuyoshi Hamada, Nippon Medical School, Department of Pharmacology; 1-1-5, Sendagi, Bunkyo-ku, Tokyo 113-8602, Japan
 (E-mail: t-hamada@nms.ac.jp, Tel: 81-3-3822-2131(ex. 5277), Fax: 81-3-5814-1684)
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 ACCESSION AF244813
 VERSION AF244813.1 GI:8886883
 KEYWORDS
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 1 (bases 1 to 2152)
 Li, X., Ponten, A., Aase, K., Karlsson, L., Abramson, A., Untela, M., Backstrom, G., Hellstrom, M., Bostrom, H., Li, H., Soriano, P.,

TITLE Betsholtz,C., Heidlin,C.-H., Alitalo,K., Ostman,A. and Eriksson,U.
PDGF-C is a novel protease-activated ligand for the PDGF alpha
receptor

JOURNAL Nat. Cell Biol. (2000) In press
REFERENCE 2 (bases 1 to 2152)

AUTHORS Eriksson,U., Aase,K., Li,X. and Ponten,A.
TITLE Direct Submission

JOURNAL Submitted (14-MAR-2000) Ludwig Institute for Cancer Research,
Nobels vag 3 P.O.Box 240, Stockholm S-171 77, Sweden

FEATURES Location/Qualifiers
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DEFINITION Sequence 9 from Patent WO0070050.

ACCESSION AX047650

VERSION AX047650.1 GI:11876693

KEYWORDS human.

SOURCE

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 2849)

AUTHORS Baker,K.P., Chen,J., Ferrara,N., Fong,S., Goddard,A., Gurney,A.L.,
Hillan,K.J., Kuo,S.S., Tumas,D. and Wood,W.I.

TITLE Compositions and methods for the treatment of immune related
diseases

JOURNAL Patent: WO 0070050-A 9 23-NOV-2000;
Genentech, Inc. (US)

FEATURES Location/Qualifiers
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DEFINITION Homo sapiens secretory growth factor-like protein fallotein mRNA,
complete cds.
ACCESSION AF091434
VERSION AF091434.1 GI:6002592
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SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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REFERENCE
1 (bases 1 to 3007)
AUTHORS Tsai,Y.-J., Lee,R.K.-K., Lin,S. and Chen,Y.
TITLE Identification of a novel platelet-derived growth factor-like gene,
fallotein, in the human reproductive tract
JOURNAL Biochim. Biophys. Acta 1492 (1), 196-202 (2000)
MEDLINE 20461776
REFERENCE
2 (bases 1 to 3007)
AUTHORS Tsai,Y.-J., Lee,R.K.-K. and Lin,S.P.
TITLE Direct Submission
JOURNAL Submitted (14-SEP-1998) Dept. Medical Research, Mackay Memorial
Hospital, 45 Min Sheng Road, Tamshui, Taipei County 25115, Taiwan
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DEFINITION Mus musculus fallotein mRNA, complete cds.
ACCESSION AF117608
VERSION AF117608.1 GI:6652867
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SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
REFERENCE
1 (bases 1 to 2692)
AUTHORS Tsai,Y.-J., Lee,R.K.-K., Chen,Y.-H., Lin,S.-P. and Cheng,W.T.-K.
TITLE cDNA cloning of fallotein from mouse ovary
JOURNAL Unpublished
REFERENCE
2 (bases 1 to 2692)
AUTHORS Tsai,Y.-J., Lee,R.K.-K., Chen,Y.-H., Lin,S.-P. and Cheng,W.T.-K.
TITLE Direct Submission
JOURNAL Submitted (03-JAN-1999) Medical Research, Mackay Memorial Hospital,
45 Min Sheng Road, Tamshui, Taipei 25115, Taiwan
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LOCUS AF266467 3512 bp mRNA ROD 02-JUN-2001
DEFINITION Mus musculus platelet-derived growth factor C (pdgfc) mRNA,
complete cds.
ACCESSION AF266467
VERSION AF266467
KEYWORDS
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
Gao, Z., Hart, C., Piddington, C., Sheppard, P., Shoemaker, K.,
Gilbertson, D., West, J. and O'Hara, P.J.
Platelet-derived growth factor C (PDGF-C), a novel growth factor
that binds to PDGF alpha receptor
Unpublished
2 (bases 1 to 3512)
Gao, Z., Hart, C., Piddington, C., Sheppard, P., Shoemaker, K.,
Gilbertson, D., West, J. and O'Hara, P.J.
Direct Submission
Submitted (10-MAY-2000) Biomolecular Informatics, ZymoGenetics,
Inc., 1201 Eastlake Avenue East, Seattle, WA 98102, USA
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LOCUS AX044520 3571 bp DNA PAT 24-NOV-2000
DEFINITION Sequence 34 from Patent WO0066736.
ACCESSION AX044520
VERSION AX044520.1 GI:11343375
KEYWORDS
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
1 (bases 1 to 3571)
Gilbert, T., Hart, C.E., Sheppard, P.O. and Gilbertson, D.G.
Growth factor homolog zvegf4
Patent: WO 0066736-A 34 09-NOV-2000;
ZymoGenetics, Inc. (US)
Location/Qualifiers
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REFERENCE

AUTHORS

TITLE

JOURNAL

FEATURES

source


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VERSION      AB033830.1 GI:11994799
KEYWORDS     Spinal cord-derived growth factor; SCDGF.
SOURCE       Rattus norvegicus (strain:Wistar) Adult Kidney cDNA to mRNA.
ORGANISM     Rattus norvegicus
              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
              Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
              Rattus.
REFERENCE    1 (sites)
AUTHORS      Hamada,T., Ui-Tei,K., Imaki,J. and Miyata,Y.
TITLE        Molecular Cloning of SCDGF-B, a Novel Growth Factor Homologous to
              SCDGF/PDGF-C/Fallotelin
JOURNAL      Biochem. Biophys. Res. Commun. 280 (3), 733-737 (2001)
PUBMED      11162582
REFERENCE    2 (bases 1 to 1116)
AUTHORS      Hamada,T., Ui-Tei,K. and Miyata,Y.
TITLE        Direct Submission
JOURNAL      Department of Pharmacology; 1-1-5, Sendagi, Bunkyo-ku, Tokyo,
              113-8602, Japan (E-mail:t-hamada@nms.ac.jp,
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seq_documentation_block:
LOCUS      AF286725      1038 bp      mRNA      23-AUG-2000
DEFINITION Mus musculus platelet-derived growth factor c (Pdgfc) mRNA,
              complete cds.
ACCESSION  AF286725
VERSION    AF286725.1 GI:9652343
KEYWORDS   house mouse.
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ORGANISM   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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REFERENCE  1 (bases 1 to 1038)
AUTHORS    Ding,H., Wu,X., Kim,I., Tam,P.P., Koh,G.Y. and Nagy,A.
TITLE      The mouse pdgfc gene: dynamic expression in embryonic tissues
              during organogenesis
JOURNAL    Mech. Dev. 96 (2), 209-213 (2000)
MEDLINE    20417814
REFERENCE  2 (bases 1 to 1038)
AUTHORS    Ding,H., Wu,X., Tam,P.P.L. and Nagy,A.
TITLE      Direct Submission
JOURNAL    Submitted (12-JUL-2000) Samuel Lunenfeld Research Institute, Mount
              Sinai Hospital, 600 University Avenue, Toronto, Ontario M5G 1X5,
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67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
876 TGAATGTCAAGTGTCCACGTTAAAGTTACAAAAAGTACCATGAGGTCC 925
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
926 TTCAGTTGAGACCAAAACCTGGAGTCAAGGGATTGCATAAGTCACACACT 975
101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlyLys 117
976 GATGTGGCTCTGAAACACCACGAGGAAATGTACTGTGTGTACAGGAAA 1025
117 rThrGlyGly 120
1026 CGCAGGAGGG 1035

Command line parameters:

Search information block:

Search time (sec): 100.840000

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/SID52/jcgdata/geneseq/geneseq/NA2001.DAT:AAAD04649	+	666.00	1336.20	2.4e-66	1760
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAAD12523	+	666.00	1334.31	3.0e-66	2108
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/SID52/jcgdata/geneseq/geneseq/NA1999.DAT:AAZ34295	+	666.00	1331.14	4.5e-66	2849
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AACT78582	+	666.00	1331.14	4.5e-66	2849
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAAAC8515	+	666.00	1331.14	4.5e-66	2849
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAAC585759	+	666.00	1331.14	4.5e-66	2849
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/SID52/jcgdata/geneseq/geneseq/NA1999.DAT:AAAB86352	+	666.00	1330.97	4.6e-66	2898
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAAF18314	+	666.00	1330.30	5.1e-66	3087
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAA12534	+	660.00	1325.35	9.5e-66	1336
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAZ48600	+	650.00	1298.61	2.9e-64	2794
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAA1986	+	646.00	1308.49	8.3e-65	500
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAA12535	+	624.00	1252.12	1.1e-61	1474
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAAC81583	+	624.00	1242.83	3.8e-61	3571
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAA51527	+	624.00	1242.83	3.8e-61	3571
/SID52/jcgdata/geneseq/geneseq/NA2001.DAT:AAAD04650	+	624.00	1242.83	3.8e-61	3571
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAAF1981	+	607.00	1223.47	4.5e-60	822
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAA1982	+	607.00	1215.74	1.2e-59	1716
/SID52/jcgdata/geneseq/geneseq/NA2000.DAT:AAA17936	+	607.00	1214.79	1.4e-59	1878

CC be used to modulate neurite growth and development of the nervous system,
CC and for treating neurodegenerative diseases.

XX
SQ Sequence 1095 BP; 320 A; 227 C; 267 G; 281 T; 0 other;

alignment_scores:
Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:
US-09-457-066-2_COPY_226_345 x AAA51540

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
|||||
765 AGAGGAGGTAGATTATACAGCTGCACACCTCGTAACCTTCAGTGTC 814
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
|||||
815 TAAGGGAAGAACTAAAGAGAACCATACCATTTCTGCCAGGTGTCTC 864
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
865 CTGGTTAAACGCTGTGTGGGAATGTCCTGTGTCTCCACAATTGCAA 914
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
|||||
915 TGAATGTCATGTCTCCAGCAAGATTACTAAAAATACACAGGTCC 964
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
965 TTCAGTTGACCAAGACCGGTGTCAGGGATTGCACAAATCACTACC 1014
101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlyse 117
|||||
1015 GACGTGCCCTGGAGCACCATGAGGAGTGTGACTGTGTGTCAGAGGGAG 1064
117 rThrGlyGly 120
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1065 CACAGGAGGA 1074

seq_name: /SIDS2/gcgdata/geneseq/geneseq/NA2000.DAT:AAA71985

seq_documentation_block:

ID AAA71985 standard; DNA; 1096 BP.

AC AAA71985;

DT 19-JAN-2001 (first entry)

XX Human VEGF-X DNA for expression in E. coli systems.

XX VEGF-X; vascular endothelial growth factor; human; vulnery; cytotatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth; ds.

OS Homo sapiens.

XX Key Location/Qualifiers

FT CDS 3..1070

FT /*tag= a

FT /product= "VEGF-X"

XX

PN WO200037641-A2.
XX
PD 29-JUN-2000.
XX
XX 21-DEC-1999; 99WO-US30503.
XX
XX 22-DEC-1998; 98GB-0028377.
PR 18-MAR-1999; 99US-0124967.
PR 08-NOV-1999; 99US-0164131.
XX
XX (JANC) JANSSEN PHARM NV.
XX
XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
PI Dhanaraj SN, Xu J;
PI
XX
XX WPI: 2000-442669/38.
DR P-PSDB; AAB10641.
XX

PT New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX
PS Disclosure; Fig 21; 127pp; English.
XX

CC This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
CC vulnery, cytotatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC for tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence encodes a human VEGF-X protein which can
CC be expressed in E. coli systems and which is described in the method of
CC the invention.
XX

SQ Sequence 1096 BP; 337 A; 225 C; 253 G; 281 T; 0 other;

alignment_scores:
Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:

US-09-457-066-2_COPY_226_345 x AAA71985

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
|||||
740 AGAGGAGGTAGATTATACAGCTGCACACCTCGTAACCTTCAGTGTC 789
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
|||||
790 TAAGGGAAGAACTAAAGAGAACCGATACCATTTTCTGCCAGGTGTCTC 839
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
840 CTGGTTAAACGCTGTGTGGGAATGTCCTGTGTCTCCACAATTGCAA 889
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
|||||

890 TGAATGTCATGTGTCCTCCAGCAAGTACTATAAAATACACAGAGTCC 939
 84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
 |||||
 940 TTCAGTTGAGACCAAGACCGGTCTCAGGGGATTGCACAAATCACTCACC 989
 101 AspValAlaLeuGluHisLysGluGluCysAspCysValCysArgGlySe 117
 |||||
 990 GACGTGGCCCTGGAGCACCATTGAGGAGTGTGACTGTGTGTCAGAGGGAG 1039
 117 rThrGlyGly 120
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 1040 CACAGGAGGA 1049

seq_name: /SIDS2/gcgdata/geneseq/geneseq/NA2000.DAT:AAA71983

seq_documentation_block:

ID AAA71983 standard; DNA; 1134 BP.

XX AC

XX AAA71983;

XX AC

XX 19-JAN-2001 (first entry)

XX DT

XX Human VEGF-X DNA for expression in mammalian systems.

XX DE

XX VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
 KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth; ds.

XX OS

XX Homo sapiens.

XX PH

XX Key Location/Qualifiers

XX CDS 10..1134

XX FT

XX /*tag= a

XX FT

XX /*product= "VEGF-X"

XX PN

XX W0200037641-A2.

XX PD

XX 29-JUN-2000.

XX XX

XX 21-DEC-1999; 99WO-US30503.

XX PR

XX 22-DEC-1998; 98GB-0028377.

XX PR

XX 18-MAR-1999; 99US-0124967.

XX PR

XX 08-NOV-1999; 99US-0164131.

XX XX

XX (JANC) JANSSEN PHARM NV.

XX XX

XX PI

XX Gordon RD., Sprengel JJ, Yon JR, Dijkmans JJH, Gosiowska A;

XX PI

XX Dhanaraj SN, Xu J;

XX XX

XX WPI; 2000-442669/38.

XX DR

XX P-PSDB; AAB10639.

XX XX

XX PT

XX New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
 XX XX

XX PS

XX Disclosure; Fig 19; 127pp; English.

XX XX

XX This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (Iia) which has
 CC vulnery, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
 CC antidiabetic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood
 CC vessels, growth and development of tissues, tissue regeneration and organ
 CC and tissue repair in a subject. The products of the invention are useful

CC for preparing medicaments for treating wounds such as dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns and to promote
 CC skin graft growth, tissue repair, proliferation of new blood vessels,
 CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence encodes a human VEGF-X protein which can
 CC be expressed in mammalian systems and which is described in the method of
 CC the invention.

XX SQ Sequence 1134 BP; 324 A; 247 C; 269 G; 294 T; 0 other;

alignment_scores:

Quality: 666.00 Length: 120

Ratio: 5.550 Gaps: 0

Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:

US-09-457-066-2_COPY_226_345 x AAA71983 ..

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34

|||||

735 AGAGGAGGTAGATTATACAGCTGCACACCTCTCACTTCTCAGTGTCCA 784

34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50

|||||

785 TAAGGGAAGAACTAAAGAGAACCGATACATTTTCTGGCCAGGTTGCTC 834

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

|||||

835 CTGGTTAAACGCTGTGGTGGGAACCTGTGCTGTCTCCACAATTCGAA 884

67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValI 84

|||||

885 TGAATGTCATGTGTCCCAAGCAAAAGTTACTAAAAAATACACAGAGTCC 934

84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100

|||||

935 TTCAGTTTCAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTCACC 984

101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117

|||||

985 GACGTGGCCCTGGAGCACCATTGAGGAGTGTGACTGTGTGTCAGAGGGAG 1034

117 rThrGlyGly 120

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1035 CACAGGAGGA 1044

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seq_documentation_block:

ID AAA71984 standard; DNA; 1134 BP.

XX AC

XX AAA71984;

XX XX

XX 19-JAN-2001 (first entry)

XX DT

XX Human VEGF-X DNA for expression in Baculovirus/insect cell systems.

XX XX

XX VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
 KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth; ds.

XX OS

XX Homo sapiens.

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FH Key Location/Qualifiers
FT CDS 63..1127
FT /*tag= a
FT /product= "VEGF-X"
PN WO200037641-A2.
XX
PD 29-JUN-2000.
XX
PF 21-DEC-1999; 99WO-US30503.
XX
PR 22-DEC-1998; 98GB-0028377.
PR 18-MAR-1999; 99US-0124967.
PR 08-NOV-1999; 99US-0164131.
XX
PA (JANC ) JANSSEN PHARM NV.
XX
PI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
PI Dhanaraj SN, Xu J;
XX
DR WPI: 2000-442669/38.
DR P-PSDB; AAB10640.
XX
PT New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX
PS Disclosure; Fig 20; 127pp; English.
XX
CC This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
CC vulnery, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence encodes a human VEGF-X protein which can
CC be expressed in Baculovirus/insect cell systems and which is described in
CC the method of the invention.
XX
SQ Sequence 1134 BP; 339 A; 225 C; 254 G; 316 T; 0 other;

alignment_scores:
    Quality: 666.00 Length: 120
    Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:
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765 GCTTTTGTGTTTGGAGAAATCCAGAGTGGTGATCTGACCTTCATAC 814
17 rGluGluValArgLeuTySerCysThrProArgAsnPheSerValSerI 34
815 AGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACCTTCTCAGTGCCA 864
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
865 TAAGGAAGAACTAAAGAGAACCCGATACCATTTTCTGCGCCAGGTGTCTC 914
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

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915 CTGGTTAAACGCTGTGGTGGAACTGTGCTGTGTCTCCACAATTGCCAA 964
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValI 84
965 TGAATGTCAATGTGTCCCAAGCAAAAGTTACTAAAAAATACCAGAGGTCC 1014
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
1015 TTCAGTTGAGACCAAGACCGGTGTTCAGGGATTGCACAAATCACTCAC 1064
101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117
1065 GACGTGGCCCTGGAGCACCATGAGGAGTGTGACTGTGTGTGCAGAGGGAG 1114
117 rThrGlyGly 120
1115 CACAGGAGGA 1124
seq_name: /SID52/gcgdata/geneseq/geneseqn/NA2001.DAT:AAF82259
seq_documentation_block:
ID_ AAF82259 standard; DNA; 1328 BP.
XX
AC AAF82259;
XX
DT 09-AUG-2001 (first entry)
XX
DE Human VEGF/PDGF-like factor nucleotide sequence.
XX
KW Human; VEGF/PDGF-like factor; vascular endothelial growth factor; VEGF;
KW platelet derived growth factor; PDGF; neovascularisation; disease; ds.
XX
OS Homo sapiens.
XX
PN JP2001017188-A.
XX
PD 23-JAN-2001.
XX
PF 24-APR-2000; 2000JP-0122994.
XX
PR 22-APR-1999; 99JP-0115516.
XX
PA (KYOW ) KYOWA HAKKO KOGYO KK.
PA (HERI-) HERIKKUSU KENKYUSHO KK.
XX
DR WPI; 2001-285410/30.
DR P-PSDB; AAB74028.
XX
PT New VEGF/PDGF-like factor useful for the development of treating agents
PT for diseases accompanied by accentuation of abnormal neovascularization
XX
PS Example 2; Page 37-39; 52pp; Japanese.
XX
CC The present sequence is a novel vascular endothelial growth factor
CC (VEGF)/platelet derived growth factor (PDGF)-like factor. The
CC invention relates to the present 345 amino acid sequence or
CC a sequence in which at least one amino acid is deleted, replaced or
CC added compared to the present sequence. The nucleotide sequence
CC encoding this protein may be integrated into a vector and used to
CC transform a host cell. The VEGF/PDGF-like factor may be used in the
CC development of agents for treating diseases associated with
CC abnormal neovascularisation.
XX
SQ Sequence 1328 BP; 372 A; 288 C; 324 G; 344 T; 0 other;

alignment_scores:
    Quality: 666.00 Length: 120
    Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

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alignment_block:

US-09-457-066-2_COPY_226_345 x AAF82259

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
189 AGAGAGGTAAGATATACAGCTGCACACCTCTGTAACCTCTGTCGCA 868
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
869 TAAGGGAAGAACTAAGACACCGATACCATTTCTGGCCAGGTGTCTC 918
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
919 CTGGTTAAACGCTGTGGTGGAACTGTGCTGTCTCCACAAATTGCAA 968
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
969 TGAATGTCAATGTGCTCCCAAGCAAAAGTTACTAAAAAATACACAGGTC 1018
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
1019 TTCAGTTGAGACCAAGACCGGTCTCAGGGGATTGCACAAATCACTACC 1068
101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117
1069 GACGTGGCCCTGGAGCACCATGAGGAGTGACTGTGTGTGCAGAGGGAG 1118
117 rThrGlyGly 120
1119 CACAGGAGGA 1128

seq_name: /SIDS2/gcgdata/geneseq/geneseqn/NA2000.DAT:AAA71955

seq_documentation_block:

ID AAA71955 standard; DNA; 1473 BP.

XX AAA71955;

XX 19-JAN-2001 (first entry)

XX Human VEGF-X DNA isolated from clones 4 and 7.

XX VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth; ds.

XX Homo sapiens.

XX WO200037641-A2.

XX 29-JUN-2000.

XX 21-DEC-1999; 99WO-US30503.

XX 22-DEC-1998; 98GB-0028377.

XX 18-MAR-1999; 99US-0124967.

XX 08-NOV-1999; 99US-0164131.

XX (JANC) JANSSEN PHARM NV.

XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;

XX Dhanaraj SN, Xu J;

XX WPI; 2000-442669/38.

DR P-PSDB; AAB10635, AAB10636.

XX New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -

XX Claim 4; Fig 9; 127pp; English.

XX This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
CC vulnery, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence encodes the human VEGF-X protein isolated
XX from clones 4 and 7 described in the method of the invention.

SQ Sequence 1473 BP; 406 A; 321 C; 361 G; 385 T; 0 other;

alignment_scores:

Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:

US-09-457-066-2_COPY_226_345 x AAA71955

Align seg 1/1 to: AAA71955 from: 1 to: 1473

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
982 AGAGAGGTAAGATTATACAGCTGCACACCTCGTAACCTCTCAGTGCCA 1031
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
1032 TAAGGGAAGAACTAAGACACCGATACCATTTCTGGCCAGGTGTCTC 1081
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
1082 CTGGTTAAACGCTGTGGTGGAACTGTGCTGTCTCCACAAATTGCAA 1131
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
1132 TGAATGTCAATGTGCTCCCAAGAAAGTTACTAAAAAATACACAGGTC 1181
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
1182 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTACC 1231
101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117
1232 GACGTGGCCCTGGAGCACCATGAGGAGTGACTGTGTGTGCAGAGGGAG 1281
117 rThrGlyGly 120
1282 CACAGGAGGA 1291

seq_name: /SIDS2/gcgdata/geneseq/geneseqn/NA2000.DAT:AAC81582

seq_documentation_block:

AAC81582 standard; DNA; 1760 BP.
AAC81582;
09-MAR-2001 (first entry)
Human zveg3 DNA, SEQ ID NO:32.
Human; zveg3; zveg4 fusion; growth factor homologue; VEGF/PDGF family;
CUB domain; PDGF-like activity; mitogenic; osteogenic;
neovascularisation; tissue repair; proliferation; differentiation;
liver damage; neuroregenerative; Alzheimer's disease; multiple sclerosis;
periodontal disease; bone fracture; wound healing; vulnerability; ischaemia;
immunomodulation; hepatic; ds.
Homo sapiens.
WO200066736-A1.
09-NOV-2000.
03-MAY-2000; 2000WO-US40047.
03-MAY-1999; 99US-0304216.
10-NOV-1999; 99US-0164463.
04-FEB-2000; 2000US-0180169.
(ZYMO) ZYMOGENETICS INC.
Gilbert T, Hart CE, Sheppard PO, Gilbertson DG;
WPI: 2000-687541/67.
P-PSDB; AAB48657.
Growth factor homologs and the nucleic acids that encode them, useful
e.g. for treating liver damage, ischemia, multiple sclerosis and
Alzheimer's disease .
Claim 25; Page 123-125; 143pp; English.
The invention relates to the human growth factor homologue zveg4
(AAB48653), and nucleic acids encoding it (AAC81555). Zveg4 is a member
of the PDGF (platelet-derived growth factor)/VEGF (vascular endothelial
growth factor) family. Zveg4 has a growth factor domain (AAB48654)
characterised by a PDGF cysteine knot structure, and a CUB domain
(AAB48655) which has a beta barrel structure. Zveg4 has PDGF-like
activity, having mitogenic activity on fibroblasts, vascular smooth
muscle cells and pericytes, and has also been shown to stimulate bone
growth. The invention also relates to fusion proteins comprising human
zveg4 or fragments thereof, particularly human zveg4/human zveg3
fusions; expression constructs and host cells comprising human zveg4
nucleic acids; the recombinant expression of human zveg4; an antibody
which binds to human zveg4 or a fragment thereof; a method of activating
a cell-surface PDGF receptor using a zveg4-derived polypeptide; a
method of modulating the proliferation, differentiation, migration or
metabolism of bone cells, comprising exposing bone cells to
zveg4-derived polypeptides; and a method of detecting a genetic
abnormality in the zveg4 gene of a patient. Zveg4 proteins and derived
fragments may be used to stimulate tissue development or repair, or
cellular differentiation or proliferation. They are particularly used for
the treatment or repair of liver damage, and may also be used to
modulate neurite growth (e.g., in the treatment of Alzheimer's disease or
multiple sclerosis). Due to their osteogenic activity, they may be used
in the treatment of periodontal disease and fractures. They may also be
used to enhance expansion and mobilisation of haematopoietic stem cells
and endothelial precursor stem cells, which may be useful in the
treatment of ischaemia, in wound healing, and in the modulation of the
immune system. The present sequence represents DNA encoding human
zveg3.
Sequence 1760 BP; 494 A; 373 C; 411 G; 482 T; 0 other;

alignment_scores:
Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000
alignment_block:
US-09-457-066-2_COPY_226_345 x AAC81582 ..
Align seg 1/1 to: AAC81582 from: 1 to: 1760
1 AlapheValPheGlyArgLysSerArgValValAspLeuAsnLeuTh 17
829 GCTTTTGGTTTGGAGAAATCCAGAGTGGTGGATCTGAACCTTCAAC 878
17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
879 AGAGGAGGTAAAGATTATACAGCTGCACACCTCGTAACCTTCAGTGTCCA 928
34 leArgGluGluLeuLysArgThrAspThrIlePheThrProGlyCysLeu 50
929 TAAGGGAGAACTAAGAGAACCGATACCATTTCTGGCCAGGTTGTCTC 978
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
979 CTGGTTAAACGGCTGTGGTGGAACTGTGCTTGTCTCCACAATTGCAA 1028
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
1029 TGAATGTCAATGTGTCCCAAGCAAAAGTTACTAAAAAATACCACGAGGTC 1078
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
1079 TTCAGTTGAGACCAAGACCGGTGTACGGGGATTCACAAATCACTCAC 1128
101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117
1129 GACGTGGCCCTGGACCAACCATGAGGAGTGTGACTGTGTGTGCAGAGGGAG 1178
117 rThrGlyGly 120
1179 CACAGGAGGA 1188
seq_name: /SIDS2/gcgdata/geneseq/geneseq/NA2000.DAT:AAA51498
seq_documentation_block:
ID AAA51498 standard; cDNA; 1760 BP.
XX
XX AAA51498;
XX
XX 26-SEP-2000 (first entry)
XX
XX Human growth factor homologue, ZVEGF3, cDNA.
XX
XX Vascular endothelial growth factor; homologue; zveg3; CUB domain;
XX Cysteine knot; platelet-derived growth factor; PDGF; neuropilin;
XX chromosome 4q28.3; cytostatic; anti-psoriatic; anti-inflammatory;
XX anti-diabetic; ophthalmologic; anti-rheumatic; anti-arthritis;
XX vulnary; ss.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX CDS 154..1191
XX /tag= a
XX /product= ZVEGF3
XX sig_peptide 154..195
XX /tag= b
XX
XX WO200034474-A2.
XX
XX 15-JUN-2000.
XX
XX 07-DEC-1999; 99WO-US28968.

XX 07-DEC-1998; 98US-0207120.
 PR 06-JUL-1999; 99US-0142576.
 PR 21-OCT-1999; 99US-0161653.
 PR 12-NOV-1999; 99US-0165255.
 XX (ZYMO) ZYMOGENETICS INC.
 XX Gao Z, Hart CE, Piddington CS, Sheppard PO, Shoemaker KE;
 PI Gilbertson DG, West JW;
 XX WPI; 2000-423420/36.
 DR P-PSDB; AAY96858.
 XX Novel zvegfg3 polypeptides and nucleotides encoding them useful for
 PT stimulating growth of smooth muscle cells and fibroblasts comprising an
 PT epitope bearing portion of a specific amino acid sequence
 XX
 FS Claim 29; Page 146-148; 173pp; English.
 XX This cDNA encodes a human vascular endothelial growth factor homologue,
 CC designated ZVEGF3. Polypeptides comprising an epitope-bearing portion
 CC human or murine ZVEGF3 are claimed. The growth factors comprise a growth
 CC factor domain and a CUB domain (generic sequence motifs are shown in
 CC AAY96859 and AAY96860). The growth factor domain is characterized by an
 CC arrangement of cysteine residues and beta-strands that is characteristic
 CC of the "cysteine knot" structure of the platelet-derived growth factor
 CC (PDGF) family. The CUB domain shows homology to CUB domains in
 CC neuropilins, human bone morphogenetic protein-1, porcine seminal plasma
 CC protein, bovine acidic seminal fluid protein and Xenopus laevis
 CC tolloid-like protein. Structural analysis and homology predict that
 CC ZVEGF3 polypeptides complex with a second polypeptide to form multimeric
 CC proteins. The human zvegfg3 gene has been mapped to chromosome 4q28.3.
 CC ZVEGF3 is useful for stimulating the growth of fibroblasts or smooth
 CC muscles cells, for activating cell surface PDGF-alpha receptor and for
 CC inhibiting PDGF-alpha receptor mediated cellular processes. ZVEGF3 is
 CC useful for regulating (post-development) organ growth, regeneration and
 CC maintenance, as well as tissue maintenance and repair processes. ZVEGF3
 CC antagonists are useful for treating cancer, rheumatoid arthritis,
 CC diabetic retinopathy, ischemic limb disease, peripheral vascular
 CC disease, myocardial ischemia, vascular intimal hyperplasia,
 CC atherosclerosis, wound healing, chronic liver disease and haemangioma
 CC formation. ZVEGF3 can also be used to modulate neurite growth and
 CC development of the nervous system, and for treating neurodegenerative
 CC diseases.
 XX
 SQ Sequence 1760 BP; 494 A; 373 C; 411 G; 482 T; 0 other;

alignment_scores:
 Quality: 666.00 Length: 120
 Ratio: 5.550 Gaps: 0
 Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:

US-09-457-066-2_copy_226_345 x AAA51498 ..

Align seg 1/1 to: AAA51498 from: 1 to: 1760

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 17 rGluGlnValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34
 |||||
 879 AGAGAGAGGTAAAGATTATACAGTCGCACACCTCGTAACCTTCTGAGTGCCA 928
 34 leArgGluGlnLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
 |||||
 929 TAGGGGAAGAACATAAGAGAACCATACCATTTTCTGGCCAGGTGTGCTC 978
 51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
 |||||

979 CTGGTTAAACCGCTGGTGGGAACTGTGCCTGTTGTCTCCACAANTGCCAA 1028
 67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
 |||||
 1029 TGAATGTCAATGTGTCCCAAGCAAGTTACTAAAAAATACACAGAGTCC 1078
 84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
 |||||
 1079 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTCACC 1128
 101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117
 |||||
 1129 GACGTGGCCCTGGAGCACCACCATGAGGAGTGTGACTGTGTGCAGAGGGAG 1178
 117 rThrGlyGly 120
 |||||
 1179 CACAGGAGGA 1188

seq_name: /SIDS2/gcgdata/geneseq/geneseqn/NA2001.DAT: AAD04649

seq_documentation_block:

ID AAD04649 standard; DNA; 1760 BP.

XX AAD04649;

XX 04-JUL-2001 (first entry)

XX Human Zvegfg3 DNA.

XX Human; Zvegfg3 antagonist; cell proliferation; stellate cell activation;
 KW extracellular matrix production; fibrosis; VEGF-R; PDGF-C;
 KW platelet-derived growth factor; PDGF; vascular endothelial growth factor;
 KW VEGF; mitogenic effect; therapy; keloid; scleroderma; fibrotic disorder;
 KW chronic active hepatitis; fulminant viral hepatitis; amyloidosis;
 KW diabetic nephropathy; alpha-1-antitrypsin deficiency; silicosis;
 KW asbestosis; renal arteriosclerosis; post necrotic cirrhosis;
 KW diabetic glomerulosclerosis; focal glomerulosclerosis; hyperostosis;
 KW pulmonary hypertension; idiopathic pulmonary fibrosis; osteopetrosis;
 KW bronchiolitis obliterans-organising pneumonia; transplant vasculopathy;
 KW fibroproliferative disorder; ds.

XX Homo sapiens.

XX Key Location/Qualifiers

FT CDS 154..1191

FT /*tag= a

FT /product= "Human Zvegfg3 protein"

FT sig_peptide

FT /*tag= b

FT mat_peptide

FT /*tag= c

FT /product= "Mature human Zvegfg3 protein"

XX WO200128586-A1.

XX 26-APR-2001.

XX 23-OCT-2000; 2000WO-US29270.

XX 21-OCT-1999; 99US-0161653.

XX 12-NOV-1999; 99US-0165255.

XX 01-AUG-2000; 2000US-0222223.

XX (ZYMO) ZYMOGENETICS INC.

XX Gilbertson DG;

XX WPI; 2001-300278/31.

XX P-PSDB; AAE00997.

XX use of zvegfg3 antagonist for reducing fibroproliferative disorder of
 PT kidney, liver and bone, reducing extracellular matrix production,
 PT treating fibrosis or reducing stellate cell activation in mammal

XX PS Example 1; Page 54-56; 70pp; English.

CC The patent discloses materials and methods for reducing cell

CC proliferation or extracellular matrix production, treating fibrosis and

CC reducing stellate cell activation in a mammal. The method comprises

CC administering a composition containing a zveg3 antagonist in combination

CC with a delivery vehicle. The zveg3 is a protein that is structurally

CC related to platelet-derived growth factor (PDGF) and the vascular

CC endothelial growth factors (VEGF). The zveg3 protein is also designated

CC as "VEGF-R" and "PDGF-C". The zveg3 antagonist is useful to block the

CC mitogenic effects of zveg3 and thereby to inhibit or prevent and treat

CC keloids, scleroderma, fibrotic disorders of liver such as chronic active

CC hepatitis, fulminant viral hepatitis, post necrotic cirrhosis and

CC alpha-1-antitrypsin deficiency, fibrotic disorders of the kidney such as

CC diabetic glomerulosclerosis, focal glomerulosclerosis, diabetic

CC nephropathy, amyloidosis and renal arteriosclerosis, fibrotic disorders

CC of the lung such as silicosis, asbestosis, idiopathic pulmonary fibrosis,

CC bronchiolitis obliterans-organising pneumonia and pulmonary hypertension,

CC fibrotic disorders of pancreas, fibroproliferative disorders of the

CC vasculature such as transplant vasculopathy and fibroproliferative

CC disorders of the bone such as osteopetrosis and hyperostosis.

CC The present sequence is human zveg3 DNA.

XX

SQ Sequence 1760 BP; 494 A; 373 C; 411 G; 482 T; 0 other;

alignment_scores:

Quality: 666.00 Length: 120

Ratio: 5.550 Gaps: 0

Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:

US-09-457-066-2_COPY_226_345 x AAD04649 ..

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34

|||||

879 AGAGGAGGTAAAGATTATACAGCTGCACACCTCGTAACCTCTCATGTCCA 928

34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50

|||||

929 TAAGGGAAGAACTAAAGAGAACCATACCATTTTCTGCCAGGTGTCTC 978

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

|||||

979 CTGGTTAAACCGCTGTGGGAACTGCGCTGTGTCTCCACAATTGCAA 1028

67 nGluCysGlnCysValProSerLysValThrLysLysThrHisGluValL 84

|||||

1029 TGAATGTCATGTGTCCCAAGCAAGTTACTAAAAAATACACAGGTCC 1078

84 euClnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100

|||||

1079 TTCAGTTGAGCAAAAGACCGGTGTACAGGGGATTGCACAAATCACTCAC 1128

101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117

|||||

1129 GAGCTGGCCCTGGAGCACCATGAGGAGTGTGACGTGTGTGTGCAGAGGGAG 1178

117 rThrGlyGly 120

|||||

1179 CACAGGAGGA 1188

seq_name: /SID52/gcgdata/geneseq/geneseqn/NA2000.DAT:AAA12523

seq_documentation_block:

ID AAA12523 standard; cDNA; 2108 BP.

..

XX AC AAA12523;

XX

DT 25-JUL-2000 (first entry)

XX

DE cDNA encoding platelet-derived growth factor C (PDGF-C).

XX

KW Platelet-derived growth factor C; PDGF-C; cell proliferation;

KW growth factor; heparin; connective tissue; wound healing; VEGF-F;

KW fibroblast mitogenesis; PDGF alpha receptor activation; tumour growth;

KW choriocarcinoma; Wilms tumour; megakaryoblastic leukaemia;

KW lung carcinoma; erythroleukemia; tissue remodelling; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

AC CDS .37..1073

FT /*tag= a

FT /product= "platelet-derived growth factor C"

XX

PN WO200018212-A2.

XX

PD 06-APR-2000.

XX

XX 30-SEP-1999; 99WO-US22668.

XX

PR 30-SEP-1998; 98US-0102461.

PR 12-NOV-1998; 98US-0108109.

PR 03-DEC-1998; 98US-0110749.

PR 18-DEC-1998; 98US-0113002.

PR 21-MAY-1999; 99US-0135426.

PR 15-JUL-1999; 99US-0144022.

XX

PA (LUDW-) LUDWIG INST CANCER RES.

PA (UYHE-) UNIV HELSINKI LICENSING LTD.

XX

PI Eriksson U, Aase K, Lee X, Ponten A, Untela M, Alitalo K;

PI Oestman A, Heidin C, Betsholz C;

XX

DR WPI; 2000-292954/25.

DR P-PSDB; AAY84557.

XX

PT Novel DNA encoding PDGF-C useful to stimulate or enhance proliferation,

PT differentiation, growth and motility of cells expressing the PDGF-C

PT receptor

XX

PS Claim 9; Fig 1; 135pp; English.

XX

CC The present sequence encodes human platelet-derived growth factor C

CC (PDGF-C) (formally designated VEGF-F). PDGF-C polypeptides have the

CC ability to stimulate and enhance proliferation or differentiation,

CC and/or growth or motility of cells expressing a PDGF-C receptor.

CC PDGF-C polypeptides can be used in pharmaceuticals for promoting cell

CC proliferation, preferably in combination with one other growth factor

CC and heparin. Pharmaceuticals comprising PDGF-C polypeptides can also

CC be used for stimulating connective tissue or wound healing. The

CC PDGF-C polypeptide can be enzymatically processed to generate the active

CC truncated form of PDGF-C and used to regulate the receptor-binding

CC specificity of PDGF-C. PDGF-C can also be used to promote fibroblast

CC mitogenesis in a mammal and to induce PDGF alpha receptor activation.

CC PDGF-C antagonists can be used to inhibit tumour growth of a tumour

CC expressing PDGF-C in a mammal. Specific types of human tumours, e.g.

CC choriocarcinoma, Wilms tumour, megakaryoblastic leukaemia, lung carcinoma

CC and erythroleukemia, can be identified by testing for expression of

CC PDGF-C. PDGF-C antagonists can also be used to inhibit tissue

CC remodelling during invasion of tumour cells into a normal population of

CC cells. Antagonists can also be used to treat fibrotic conditions,

CC especially found in the lung, kidney or liver.

XX

SQ Sequence 2108 BP; 623 A; 400 C; 451 G; 629 T; 5 other;

alignment_scores:

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Quality: 666.00      Length: 120
Ratio: 5.550         Gaps: 0
Percent Similarity: 100.000  Percent Identity: 100.000

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17  rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
|||||
762 AGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACCTCTCAGTGCCA 811

34  leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
|||||
812 TAAGGAAGAAGACTAAAGAGAACCGATACCATTTTCTGGCCAGGTTGTC 861

51  LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
862 CTGGTTAAACGCTGTGGGAACCTGTGCCTGTGTCTCCACAATTGCAA 911

67  nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
|||||
912 TGAATGCTCAATGTGTCCTCAAGCAAGTTACTAAAAATACCAGAGTCC 961

84  euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
962 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTACC 1011

101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117
|||||
1012 GAGTGGCCCTGGAGCACCATGAGGAGTGACTGTGTGTGCAGAGGGAG 1061

117  rThrGlyGly 120
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1062 CACAGGAGGA 1071
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seq_documentation_block:

ID AAA71951 standard; DNA; 2475 BP.

AC AAA71951;

XX DT 19-JAN-2001 (first entry)

XX DE Human RACE generated VEGF-X DNA.

XX VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth; ds.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

FT CDS 122..1159

FT /*tag= a

FT /product= "VEGF-X"

PN WO200037641-A2.

XX 29-JUN-2000.

XX PF 21-DEC-1999; 99WO-US30503.

XX 22-DEC-1998; 98GB-0028377.

```

PR 18-MAR-1999; 99US-0124967.
PR 08-NOV-1999; 99US-0164131.
XX
PA (JANC ) JANSSEN PHARM NV.
XX
XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JHJ, Gosiewska A;
PI Dhanaraj SN, Xu J;
XX
DR WP1: 2000-442669/38.
DR P-PSDB; AAB10633.
XX
PT New vascular endothelial growth factor protein; useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX
XX Disclosure; Fig 6; 127pp; English.
XX
CC This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (Iia) which has
CC vulnery, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence encodes the RACE generated human VEGF-X
CC protein described in the method of the invention.
XX
SQ Sequence 2475 BP; 730 A; 473 C; 523 G; 749 T; 0 other;
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alignment_scores:

Quality: 666.00 Length: 120

Ratio: 5.550 Gaps: 0

Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:

US-09-457-066-2_COPY_226_345 x AAA71951

Align seg 1/1 to: AAA71951 from: 1 to: 2475

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797 GCTTTGTTTTGGAGAAATCCAGAGTGGTGAATCTGAACCTCTTAAC 846

17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34

847 AGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACCTCTCAGTGCCA 896

34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50

897 TAAGGAAGAAGACTAAAGAGAACCGGATACCATTTTCTGGCCAGGTTGTC 946

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

947 CTGGTTAAACGCTGTGGGAACCTGTGCCTGTGTCTCCACAATTGCAA 996

67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84

997 TGAATGCTCAATGTGTCCTCAAGCAAGTTACTAAAAATACCAGAGTCC 1046

84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100

1047 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTACC 1096

101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117

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1097 GACGTGGCCCTGGAGCACCATTGAGGAGTGTGACTGTGTGTGCAGAGGGAG 1146

117 rThrGlyGly 120
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1147 CACAGGAGGA 1156

seq_name: /SIDS2/gcgdata/geneseq/geneseqn/NA2000.DAT:AAA71990

seq_documentation_block:
ID AAA71990 standard; cDNA; 2668 BP.

XX AC AAA71990;

XX DT 19-JAN-2001 (first entry)

XX DE Human VEGF-X cDNA.

XX KW VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
KW venous sore; diabetic ulcer; burns; skin graft growth; ss.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers
XX CDS 267..1304

XX FT /*tag= a

XX FT /product= "VEGF-X"

XX PN WO200037641-A2.

XX PD 29-JUN-2000.

XX PF 21-DEC-1999; 99WO-US30503.

XX PR 22-DEC-1998; 98GB-0028377.

XX PR 18-MAR-1999; 99US-0124967.

XX PR 08-NOV-1999; 99US-0164131.

XX PA (JANC) JANSSEN PHARM NV.

XX PI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;

XX PI Dhanaraj SN, Xu J;

XX WPI; 2000-442669/38.

XX DR P-PSDB; AAB10644.

XX PT New vascular endothelial growth factor protein, useful for treating or
XX PT preventing diseases associated with inappropriate angiogenesis activity
XX PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX PS Disclosure: Fig 30B; 127pp; English.

XX CC This invention describes a novel vascular endothelial growth factor-X
XX CC (VEGF-X) protein (1a) and its encoding polynucleotide (11a) which has
XX CC vulnery, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
XX CC antidiabetic activity and acts as an angiogenesis and vascularization
XX CC regulator. An antisense molecule of the invention is useful for treating
XX CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
XX CC retinopathy by inhibiting angiogenic activity or inappropriate
XX CC vascularization including formation and proliferation of new blood
XX CC vessels, growth and development of tissues, tissue regeneration and organ
XX CC and tissue repair in a subject. The products of the invention are useful
XX CC for preparing medicaments for treating wounds such as dermal ulcers,
XX CC pressure sores, venous sores, diabetic ulcers and burns and to promote
XX CC skin graft growth, tissue repair, proliferation of new blood vessels,
XX CC tissue regeneration and organ repair by promoting angiogenic activity or
XX CC vascularization. This invention encodes a human VEGF-X protein described
XX CC in the method of the invention.

XX SQ Sequence 2668 BP; 780 A; 511 C; 567 G; 810 T; 0 other;

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Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
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992 AGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACCTTCAGTGTCCA 1041

34 leArgGluCluLeuLysArgThrAspThrIlePheThrProGlyCysLeu 50
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1042 TAAGGGAAGAACTAAGAGAACCGATACCATTTTCTGGCCAGGTGTCTC 1091

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
1092 CTGGTTAAACGGCTGTGGTGGAACTGTGCTGTCTCCACAATTGCAA 1141

67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
|||||
1142 TCAATGTCAATGTGTCCCAAGCAAGTTACTAAAAAATACCACGAGGTCC 1191

84 euGluLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
1192 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTCACACAAATCACATCAC 1241

101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117
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1242 GACGTGGCCCTGGACCACTGAGGAGTGTGACTGTGTGTGCAGAGGGAG 1291

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1292 CACAGGAGGA 1301

seq_name: /SIDS2/gcgdata/geneseq/geneseqn/NA2000.DAT:AAA71952

seq_documentation_block:
ID AAA71952 standard; DNA; 2776 BP.

XX AC AAA71952;

XX DT 19-JAN-2001 (first entry)

XX DE Human VEGF-X homologue DNA.

XX KW VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;
XX KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
XX KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
XX KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
XX KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
XX KW venous sore; diabetic ulcer; burns; skin graft growth; ds.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

XX CDS 260..1297

XX FT /*tag= a

XX FT /product= "VEGF-X homologue"

XX PN WO200037641-A2.

XX PD 29-JUN-2000.

PF 21-DEC-1999; 99WO-US30503.
XX
XX 22-DEC-1998; 98GB-0028377.
PR 18-MAR-1999; 99US-0124967.
PR 08-NOV-1999; 99US-0164131.
XX
XX (JANC) JANSSEN PHARM NV.
XX Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Gosiewska A;
PI Dhanaraj SN, Xu J;
XX
XX WPI; 2000-442669/38.
DR P-PSDB; AAB10634.
XX
XX New vascular endothelial growth factor protein, useful for treating or
PT preventing diseases associated with inappropriate angiogenesis activity
PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
XX
XX Disclosure; Fig 7; 127pp; English.
XX
XX This invention describes a novel vascular endothelial growth factor-X
CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
CC vulnarary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and
CC antidiabetic activity and acts as an angiogenesis and vascularization
CC regulator. An antisense molecule of the invention is useful for treating
CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
CC retinopathy by inhibiting angiogenic activity or inappropriate
CC vascularization including formation and proliferation of new blood
CC vessels, growth and development of tissues, tissue regeneration and organ
CC and tissue repair in a subject. The products of the invention are useful
CC for preparing medicaments for treating wounds such as dermal ulcers,
CC pressure sores, venous sores, diabetic ulcers and burns and to promote
CC skin graft growth, tissue repair, proliferation of new blood vessels,
CC tissue regeneration and organ repair by promoting angiogenic activity or
CC vascularization. This sequence encodes the human VEGF-X protein homologue
XX described in the method of the invention.
XX
XX Sequence 2776 BP; 825 A; 515 C; 587 G; 849 T; 0 other;

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Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000
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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
985 ACAGAGGTTAAGATTATACAGCTGCACCTCTGTAACCTCTCAGTGCCA 1034
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
1035 TAAGGAAGAACTAAAGAACCGATACCATTTCTGGCAGGTGCTCTC 1084
51 LeuValLysArgCysGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
1085 CTGGTTAAACGCTGTGGTGGGAACCTGCTGTCTCTCCACAATTGCAA 1134
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
1135 TGAATGTCAATGTGTCACCAAGCAAGTTACTAAAAAATACCCAGGTC 1184
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
1185 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACCAANTCACTACC 1234

101 AspValAlaLeuGluHisGluCysAspCysValCysArgGlyse 117
1235 GACGTGGCCCTGGAGCACCATGAGGAGTGTGACTGTGTGTCAGAGGAG 1284
117 rThrGlyGly 120
1285 CACAGGAGGA 1294
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seq_documentation_block:
ID AAA52458 standard; cDNA; 2779 BP.
XX
XX AC AAA52458;
XX 25-SEP-2000 (first entry)
XX
XX cDNA encoding human growth factor related molecule GFRP-4.
XX
XX Homo sapiens.
OS
XX
XX Key Location/Qualifiers
CDS 258..1295
FT /*tag= a
FT /*product= "Human GFRP-4"
XX
XX WO200024774-A2.
XX
XX 04-MAY-2000.
XX
XX 28-OCT-1999; 99WO-US25458.
XX
XX 28-OCT-1998; 98US-0181711.
PR 11-DEC-1998; 98US-0209547.
PR 17-MAY-1999; 99US-0313457.
XX
XX (INCY-) INCYTE PHARM INC.
XX
XX Tang YT, Yue H, Hillman JL, Corley NC, Guegler KJ, Baughn MR;
PI Au-Young J;
XX
XX WPI; 2000-350695/30.
DR P-PSDB; AAB03003.
XX
XX Human growth factor related molecule protein useful for the diagnosis
PT and treatment of disorders associated with its activity including
PT developmental, cell proliferative, immune, reproductive and
PT cardiovascular disorders and infections -
XX
XX Claim 9; Page 76; 80pp; English.
XX
XX This sequence represents cDNA encoding human growth factor related
CC molecule GFRP-4. cDNA encoding GFRP-4 was initially identified in a
CC diseased breast tissue cDNA library, and the present sequence represents
CC a consensus derived from several overlapping and/or extended cDNA
CC clones. GFRP-4 has chemical and structural homology with human bone
CC morphogenetic protein 1 (BMP-1) (27% identity at the BMP-1 C-terminus).
CC GFRP-4 was found by Northern analysis to be expressed in reproductive
CC and cardiovascular tissue, and in cDNA libraries associated with cancer,
CC inflammation and the immune response. GFRP proteins (AAB03000-B03003),
CC nucleotides encoding them (AAA52455-A52458), GFRP agonists and
CC antagonists may be used to treat a wide variety of diseases associated
CC with increased or decreased expression or activity of GFRP proteins.
CC Conditions which may be treated include developmental disorders, cell

CC proliferative disorders (e.g., cancers), immune disorders (e.g., allergies, asthma), reproductive disorders (e.g., menstrual cycle disorders), cardiovascular disorders (e.g., arteriosclerosis) and CC bacterial, viral, fungal or parasitic infections. Additionally, GFRP CC proteins and nucleotides can be used in the diagnosis of such disorders.
XX
SQ Sequence 2779 BP; 832 A; 515 C; 585 G; 847 T; 0 other;

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Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

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Align seg 1/1 to: AAA52458 from: 1 to: 2779

1 AlaPheValPheGlyArgLysSerArgValValAspLeuAsnLeuLeuTh 17
933 GCITTTGTTTTGGAGAAAATCCAGAGTGGTGATCTGAACCTTCTAAC 982
17 rGluValValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
983 AGAGGAGGTAAAGATTATACAGCTGCACACCTCGTAACCTCTCAGTGCCA 1032
34 leArgGluGluLeuLysArgThrAspThrIlePheThrProGlyCysLeu 50
1033 TAAGGGAAGAACTAAAGAGAACCGATACCATTTCTGCCAGGTGTCTC 1082
51 LeuValLysArgCysGlyGlyValAsnCysAlaCysCysLeuHisAsnCysAs 67
1083 CTGTTTAAACCTGTGGGAACTGTCCTGTCTCCAAATGCA 1132
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
1133 TGAATGTCATGTCTCCCAAGCAAGTTACTAAAAATACCACGAGGTCC 1182
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
1183 TTCAGTTGAGACCAAGACCGGTCTCAGGGGATTGCACAAATCACTACC 1232
101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117
1233 GACGTGCCCTTGGAGACCATGAGAGTGTGACTGTGTCTCAGAGGGAG 1282
117 rThrGlyGly 120
1283 CACAGGAGGA 1292

seq_name: /SIDS2/gcgdata/geneseq/geneseqn/NA1999.DAT:AAZ23691

seq_documentation_block:
ID AAZ23691 standard; DNA; 2825 BP.

XX AAZ23691;

XX 11-JAN-2000 (first entry)

DE Human VEGF-E DNA.

XX VEGF-E; human; vascular endothelial cell growth factor; wound repair;
KW treatment; cardiovascular disorder; endothelial disorder; therapy;
KW tissue generation; regeneration; cardiac hypertrophy; cancer; detection;
KW angiogenic disorder; age-related macular degeneration; vascular disease;
KW neovascularization; tumor; gene mapping; ss.

OS Homo sapiens.

XX Key Location/Qualifiers
FH 259..1296
FT CDS
FT /*tag= a

FT
XX
PN WO9947677-A2.
XX 23-SEP-1999.
PD
XX 10-MAR-1999; 99WO-US05190.
XX 17-MAR-1998; 98US-0040220.
PR 02-NOV-1998; 98US-0184216.
XX (GETH) GENENTECH INC.
XX Ferrata N, Kuo SS;
XX WPI: 1999-580306/49.
DR P-PSDB; AAY33679.
XX
XX New growth factor polypeptide useful for treating cardiovascular or
XX endothelial disorders, e.g. cardiac hypertrophy
XX
XX Claim 2; Fig 1; 122pp; English.
XX
XX This invention describes the isolation of a novel human vascular
XX endothelial cell growth factor-E (VEGF-E) polypeptide which has
XX tranquillizer, vulnery and cardiant activity. VEGF-E can be administered
XX therapeutically, especially by expressing encoding polynucleotides, to
XX treat cardiovascular or endothelial disorders in mammals, especially
XX humans. It is useful in wound repair and tissue generation and
XX regeneration, and may especially be used to treat cardiac hypertrophy
XX It can be combined with a carrier in pharmaceutical compositions, which
XX can be administered to treat disorders as above. VEGF-E can be used to
XX screen for antagonists and agonists, and the antagonists administered to
XX treat angioenic disorders in mammals (especially humans) e.g. cancer or
XX age-related macular degeneration. It can be used to generate antibodies,
XX useful therapeutically as antagonists, as above. The antibodies are also
XX useful to detect VEGF-E polypeptide, especially to diagnose
XX cardiovascular, endothelial or angioenic disorders in mammals (e.g.
XX vascular disease, or neovascularization associated with tumor formation),
XX by contacting the antibody with a tissue sample and detecting formation
XX of an antibody-VEGF-E polypeptide complex. Polynucleotides encoding
XX VEGF-E can be used to diagnose cardiovascular and endothelial disorders
XX in mammals, by detecting abnormally high or low VEGF-E gene expression in
XX tissue samples. They can also be used to diagnose a disease or
XX susceptibility to a disease related to a mutated form of VEGF-E (e.g. a
XX cardiovascular, endothelial or angioenic disorder such as a tumor), by
XX detecting a mutation in the VEGF-E encoding sequence isolated from a
XX sample. They may also be used to produce probes useful to detect related
XX sequences or for gene mapping. This sequence encodes the human VEGF-E
XX protein described in the method of the invention.
XX
XX SQ Sequence 2825 BP; 849 A; 522 C; 605 G; 848 T; 1 other;

alignment_scores:
Quality: 666.00 Length: 120
Ratio: 5.550 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 100.000

alignment_block:
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934 GCITTTGTTTTGGAGAAAATCCAGAGTGGTGATCTGAACCTTCTAAC 983
17 rGluValValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
984 AGAGGAGGTAAAGATTATACAGCTGCACACCTCGTAACCTTCTCAGTGCCA 1033
34 leArgGluGluLeuLysArgThrAspThrIlePheThrProGlyCysLeu 50

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|||||
1034 TAAGGGAAGAACTAAAGAGAACCGATACCATTTCTGGCCAGGTGTCTC 1083
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
1084 CTGGTTAAACGCTGTGTGGGAACCTGTGCTGTCTCCACAATTGCAA 1133
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluValL 84
|||||
1134 TGAATGTCAATGTGTCCCAAGCAAAGTTACTAAAAAATACCACGAGGTCC 1183
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
1184 TTCAGTTGAGACCAAGACCGGTGTACAGGGGATTCACAAATCACTACC 1233
101 AspValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySe 117
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1234 GACGTGGCCCTGGAGCACCACCATGAGGAGTGTGACTGTGTGTCCAGAGGAG 1283
117 rThrGlyGly 120
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1284 CACAGGAGGA 1293
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[illegible]

439 GACATGCGTAGAAGTCGCCAGTG

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 439 GACATCGGTGAAGTGCCTAGTGAGCTGGGGAAGACAACCAACACATCTCT 488


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29  nPheSerValSerIleArgGluGluLeu.....LysArgThrAspThrIleP 45
441  GACATCGGTAGAGTCCCGAGTGAGCTGGGCAACACACCAACACATTCT 490
45  heTrpProGlyCysLeuLeuValLysArgCysGlyGlyAsnCysAlaCys 61
491  TCAAGACCCCTCTGTAAATGCTCTCCGGTGTGGAGC.....TGC 531
62  CysLeuHisAsnCysAsnGluCysGlnCysVal.....ProSerIly 75
532  TGC.....AACCAAGAGGGTGTGATGCTGTATGAACACACAGCACCTCTCA 575
75  sValThrLysLysTyHisGluValLeuGlnLeuArgProLysThrGlyV 92
576  CATCTCCAAACACACTTTGAGATATCAGTG.....CCTCTGACATCAG 619
92  alargGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisHisGlu 108
620  TG.....CCCGAGTTAGTGCCTGTTAAAAATTGCCAACCATACG 657
109  GluCysAspCysValCysArgGly 116
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seq_documentation_block:
; Sequence 4, Application US/08915795
; Patent No. 6235713
; GENERAL INFORMATION:
; APPLICANT: Marc G. ACHEN
; APPLICANT: Andrew F. WILKS
; APPLICANT: Steven A. STACKER
; APPLICANT: Kari ALITALO
; TITLE OF INVENTION: GROWTH FACTOR
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
; STREET: 1200 G Street, NW, Suite 700
; CITY: Washington
; STATE: DC
; COUNTRY: United States of America
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/915,795
; FILING DATE:
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: EVANS, Joseph D.
; REGISTRATION NUMBER: 26,269
; REFERENCE/DOCKET NUMBER: 1064/42983
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 628-8800
; TELEFAX: (202) 628-8844
; TELE: N/A
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2029 base pairs

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Percent Identity:	33.333
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; APPLICATION NUMBER: US/08/915,795
; FILING DATE:
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: EVANS, Joseph D.
; REGISTRATION NUMBER: 26,269
; REFERENCE/DOCKET NUMBER: 1064/42983
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 628-8800
; TELEFAX: (202) 628-8844
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
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; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE-TYPE: cDNA
; HYPOTHETICAL: NO
; ORIGINAL SOURCE:
; TISSUE TYPE: Human Breast
US-08-915-795-1

alignment_scores:
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alignment_block:
US-09-457-066-2_COPY_226_345 x US-08-915-795-1 ..
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45 heTrpProGlyCysLeuLeuValLysArgCysGlyGlyAsnCysAlaCys 61
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77 rLysLysTyHisGluValLeuGlnLeuArgProLysThrGlyValArg 94
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2169 CAACACAGCTCTTTGAGATATCAGTG.....CTTTGACATCAGTA.... 2208
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seq_documentation_block:
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; Patent No. 6017731
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; PROTEINS IN YEAST
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:

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66 GACCACCTTGGCTGTAAAGTCT 46
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seq_documentation_block:
; Sequence 4, Application US/09340250
; Patent No. 6083723
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; TITLE OF INVENTION: PROTEINS IN YEAST
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
; STREET: 3605 Glenwood Ave. Suite 310
; CITY: Raleigh
; STATE: NC
; COUNTRY: US
; ZIP: 27622
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION NUMBER: US/09/340,250
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/989,251
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Spruill, W. Murray
; REGISTRATION NUMBER: 32,943
; REFERENCE/DOCKET NUMBER: 5784-4
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919 420 2202
; TELEFAX: 919 881 3175
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 352 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: other nucleic acid
; DESCRIPTION: /desc = "Complementing strand to the
; DESCRIPTION: preceding SEQ ID NO., listed to show the
; DESCRIPTION: produced upon assembly."
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
US-09-340-250-4

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Align seg 1/1 to reverse of: US-09-340-250-4 from: 1 to: 352

16 LeuThrGluGluValArgLeuTySerCysThrProArg...AsnPhase 31
324 ATCGCTGAACCAAGCTATGATCGCTGAATCTAGAGACTAGAACTTAAGTTTTT 275
31 rValSerIleArgGluGluLeuLySerArgThrAspThrIlePhe.....T 46
274 GAAATCTTCAGAGAAATTGATTCAGACAGAACTAACGCTAACTCTTCGGTTT 225
46 rpProGlyCysLeuLeuValLySerArgCysGlyGlyAsnCysAlaCysCys 62
||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

```

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224 GGCCACCATGTGTGAAGTTCAAGATGTTCTGGT .....TGTTGT 184
63 LeuHisAsnCysAsnGluCysGlnCysValProSerLysValThrLysLy 79
   ||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
183 .....AACACAGAACAGTTCATGTAGACCAACTCAAGT..... 148
79 sTyvHisGluValLeuGlnLeuArgPro.....LysThrGlyV 92
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
147 .....CAATTGAGACCAAGTTCAGTTAGAAAGATCGAAA 114
92 al.....ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGlu 105
   : : : : : : : : : : : : : : : : : : : : : :
113 TCCTTAGAAGACCAATCTTCAGAGAGCTACT...GTACTTTGGAA 67
106 HisHisGluGluCysAspCys 112
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
66 GACCACCTGGCTGTGAAGTGT 46

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seq_name: /cgn2_6/ptodata/2/ina/6A_COMB.seq:US-08-867-352-24

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; Sequence 24, Application US/08867352
; Patent No. 6060273
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: Multicistronic expression units and their use
; NUMBER OF SEQUENCES: 25
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25 (EPA)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/867,352
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/387,847
; FILING DATE:
; INFORMATION FOR SEQ ID NO: 24:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 625 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; IMMEDIATE SOURCE:
; CLONE: pSBC-1/-2-PDGF-B
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 40..609
; OTHER INFORMATION: /product= "PDGF-B
; OTHER INFORMATION: precursor sequence"
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 283..609
; OTHER INFORMATION: /product= "mature PDGF-B chain"
; US-08-867-352-24

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alignment_scores:
  Quality: 108.00      Length: 121
  Ratio: 1.636        Gaps: 11
  Percent Similarity: 54.545      Percent Identity: 34.711

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alignment_block:
US-09-457-066-2_COPY_226_345 x US-08-867-352-24

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5 GlyArgLysSerArgValValAsnLeuLeuThr.....GluG1 19

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274 GGAGAAGAGAGC.....CTGGGTTCCCTGACCATTGCTGAGCC 311
19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
   : : : : : : : : : : : : : : : : : : : : : :
312 GGCCATGATCGCGCGAGTGCAAGACGCGCAGGAGGTGTCGAGATCTCC. 360
34 leArgGluGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
   ||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
361 ..CGCGCGCTCATAGACGCGCACCACTTCTCGTGTGGCGCGCC 408
49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHis 65
   ||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
409 TGTGTGGAGGTGCGCGCTGCTCCGCG.....TGCTGC.....AA 443
65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHis 82
   ||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
444 CAACCGCAACGTGCAGTGCCTGCCGCCACCCAGGTG..... 477
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
478 .....CAGCTGCGACCTGTCAGGTGAGAAAGATCGAGATTGTCGG 519
93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
   : : : : : : : : : : : : : : : : : : : : : :
520 AAGAAGCCAATCTTTAAGAAGGCCACG...GTACGCTGGAAGACCACCT 566
108 uGluCysAspCys 112
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seq_name: /cgn2_6/ptodata/2/ina/backfiles1.seq:5175255-3

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seq_documentation_block:
; Patent No. 5175255
; APPLICANT: Thomson, Arlen R.; Nicholson, Margery
; TITLE OF INVENTION: METHODS FOR PURIFICATION OF PLATELET-
; DERIVED GROWTH FACTOR
; NUMBER OF SEQUENCES: 9
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/06/25,344
; FILING DATE: 23-MAR-1987
; SEQ ID NO: 3
; LENGTH: 691
; 5175255-3

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alignment_scores:
  Quality: 108.00      Length: 121
  Ratio: 1.636        Gaps: 11
  Percent Similarity: 54.545      Percent Identity: 34.711

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5 GlyArgLysSerArgValValAspLeuAsnLeuLeuThr.....GluG1 19
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172 GGAGAAGAGC.....CTGGGTTCCCTGACCATTGCTGAGCC 209

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19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
   : : : : : : : : : : : : : : : : : : : : : :
210 GGCCATGATCGCGCGAGTGCAAGACGCGCAGGAGGTGTCGAGATCTCC. 258
34 leArgGluGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
   ||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
259 ..CGCGCGCTCATAGACGCGCACCACTTCTCGTGTGGCGCGCC 306
49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHis 65
   ||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
307 TGTGTGGAGGTGCGCGCTGCTCCGCG.....TGCTGC.....AA 341

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65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHisG 82
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342 CAACCGCAAGTCAGTGCCTGCGCCGCCACCCAGGTG..... 375
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
||||| ||||| |||||
376 .....CAGCTGCGACCTGCTCAGGTGAGAAAGATCGAGATTGTGCGG 417
93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
: : : : : ||||| : : : : : |||||
418 AAGAAGCCAATCTTTAAGAGGCCACG...GTGACGCTGGAAGACCACCT 464
108 uGluCysAspCys 112
||| |||
465 GGCATGCAAGTGT 477

seq_name: /cgn2_6/ptodata/2/ina/backfiles1.seq:5194596-14

seq_documentation_block:
;PATENT NO. 5194596
;APPLICANT: TISCHER, EDMUND G.;ABRAHAM, JUDITH A.;FIDDES,
;C.;MITCHELL, RICHARD L.
;TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
;GROWTH FACTOR
;NUMBER OF SEQUENCES: 32
;CURRENT APPLICATION DATA:
;APPLICATION NUMBER: US/07/450,883
;FILING DATE: 14-DEC-1989
;PRIOR APPLICATION DATA:
;APPLICATION NUMBER: 387,545
;FILING DATE: 27-JUL-1989
;SEQ ID NO:14:
;LENGTH: 671
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  Ratio: 1.636        Gaps: 11
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235 GGAAGAAGGAGC.....CTGGGTTCCTGACCATTTGCTGAGCC 272

19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
: : : : : ||||| : : : : :
273 GGCCATGATGCGCGAGTGCAGACGCGCACCGAGGTGTTGAGATCTCC. 321

34 leArgGluGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
||||: : : : : ||||| : : : : :
322 ..CGGCGCTCATAGACCGACCAACGCCAACTTCCTGGTGTGCGCCGCC 369

49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAs 65
: : : : : ||||| : : : : : |||||
370 TGTGTGAGGTGCGAGCTGCTCCGCG.....TGCTGC.....AA 404

65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHisG 82
| : : : : : ||||| : : : : :
405 CAACCGCAAGTCAGTGCCTGCGCCGCCACCCAGGTG..... 438
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
||||| ||||| |||||
439 .....CAGCTGCGACCTGTCAGGTGAGAAAGATCGAGATTGTGCGG 480

93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
: : : : : ||||| : : : : : |||||
481 AAGAAGCCAATCTTTAAGAGGCCACG...GTGACGCTGGAAGACCACCT 527
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108 uGluCysAspCys 112
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528 GGCATGCAAGTGT 540

seq_name: /cgn2_6/ptodata/2/ina/backfiles1.seq:5219739-14

seq_documentation_block:
;PATENT NO. 5219739
;APPLICANT: TISCHER, EDMUND G.;ABRAHAM, JUDITH A.;FIDDES,
;JOHN C.;MITCHELL, RICHARD L.
;TITLE OF INVENTION: DNA SEQUENCES ENCODING BVEGF120 AND
;HVEGF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN
;VAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BVEGF120 AND HVEGF121
;NUMBER OF SEQUENCES: 40
;CURRENT APPLICATION DATA:
;APPLICATION NUMBER: US/07/559,041
;FILING DATE: 27-JUL-1990
;PRIOR APPLICATION DATA:
;APPLICATION NUMBER: 450,883
;FILING DATE: 14-DEC-1989
;APPLICATION NUMBER: 387,545
;FILING DATE: 27-JUL-1989
;SEQ ID NO:14:
;LENGTH: 739
5219739-14
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  Ratio: 1.636        Gaps: 11
  Percent Similarity: 54.545      Percent Identity: 34.711

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||||| : : : : : |||||
243 GGAAGAAGGAGC.....CTGGGTTCCTGACCATTTGCTGAGCC 280

19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
: : : : : ||||| : : : : :
281 GGCCATGATGCGCGAGTGCAGACGCGCACCGAGGTGTTGAGATCTCC. 329

34 leArgGluGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
||||: : : : : ||||| : : : : :
330 ..CGGCGCTCATAGACCGCACCAACGCCAACTTCCTGGTGTGCGCGCCC 377

49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAs 65
| : : : : : ||||| : : : : : |||||
378 TGTGTGAGGTGCGAGCTGCTCCGCG.....TGCTGC.....AA 412

65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHisG 82
| : : : : : ||||| : : : : :
413 CAACCGCAAGTCAGTGCCTGCGCCGCCACCCAGGTG..... 446
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
||||| ||||| |||||
447 .....CAGCTGCGACCTGTCAGGTGAGAAAGATCGAGATTGTGCGG 488

93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
: : : : : ||||| : : : : : |||||
489 AAGAAGCCAATCTTTAAGAGGCCACG...GTGACGCTGGAAGACCACCT 535

108 uGluCysAspCys 112
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; Sequence 3, Application US/08387845
; Patent No. 5665567
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: Preparation of heterodimeric PDGF-AB using a
; bicistronic vector system in mammalian cells
; NUMBER OF SEQUENCES: 16
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25 (EPA)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/387,845
; FILING DATE:
; CLASSIFICATION: 435
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 868 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; IMMEDIATE SOURCE:
; CLONE: pmvW-2 (Weich et al., 1986)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 40..762
; OTHER INFORMATION: /product= "PDGF-B
; precursor sequence"
; OTHER INFORMATION: /note= "human PDGF-B gene from pGEM2-PDGF-B,
; flanked by 5'-EcoRI und 3'-HindIII
; OTHER INFORMATION: restriction cleavage sites"
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 283..609
; OTHER INFORMATION: /product= "mature PDGF-B chain"
; PUBLICATION INFORMATION:
; AUTHORS: Weich, H. A.
; AUTHORS: Seibald, W.
; AUTHORS: Schairer, H. U.
; AUTHORS: Hoppe, U.
; JOURNAL: FEBS Lett.
; VOLUME: 198
; PAGES: 344-348
; DATE: 1986
; US-08-387-845-3

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alignment_scores:
  Quality: 108.00      Length: 121
  Ratio: 1.636        Gaps: 11
  Percent Similarity: 54.545      Percent Identity: 34.711

alignment_block:
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5 GlyArgLysSerArgValValAspLeuLeuThr.....Glu1 19
274 GGAAGAGGAGC.....CTGGGTCCCTGACCATGTGTGAGCC 311
19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
312 GGCCATGATCGCGAGTGCAAGACGCGCAGGAGTCTTCGAGATCTCC. 360
34 leArgGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
361 ..CGGCGCTCATAGACGCGACCAACGACCACTCTCTGGTGTGCGCCGCC 408

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49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAs 65
||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
409 TGTGTGGAGTGCAGCGTGTCTCCGCG.....TGCTGC.....AA 443
65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHisG 82
| : : : : | | | | | | | | | | | | | | | | | | | | |
444 CAACCGCACGTGCAGTGCCTCCGCCGCCACCCAGGCG..... 477
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
||||| ||||| ||||| ||||| ||||| ||||| |||||
478 .....CAGCTGCACCTGTCCAGGTGAGAAAGATCGAGATTGTGCGG 519
93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
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108 uLuCysAspCys 112
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; Sequence 3, Application US/08778275
; Patent No. 5935819
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: Preparation of heterodimeric PDGF-AB using a
; bicistronic vector system in mammalian cells
; NUMBER OF SEQUENCES: 16
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25 (EPA)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/778,275
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/387,845
; FILING DATE:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 868 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; IMMEDIATE SOURCE:
; CLONE: pmvW-2 (Weich et al., 1986)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 40..762
; OTHER INFORMATION: /product= "PDGF-B
; precursor sequence"
; OTHER INFORMATION: /note= "human PDGF-B gene from pGEM2-PDGF-B,
; flanked by 5'-EcoRI und 3'-HindIII
; OTHER INFORMATION: restriction cleavage sites"
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 283..609
; OTHER INFORMATION: /product= "mature PDGF-B chain"
; PUBLICATION INFORMATION:
; AUTHORS: Weich, H. A.
; AUTHORS: Seibald, W.
; AUTHORS: Schairer, H. U.
; AUTHORS: Hoppe, U.
; JOURNAL: FEBS Lett.
; VOLUME: 198
; PAGES: 344-348

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; DATE: 1986
US-08-778-275-3

alignment_scores:
Quality: 108.00 Length: 121
Ratio: 1.636 Gaps: 11
Percent Similarity: 54.545 Percent Identity: 34.711

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Align seg 1/1 to: US-08-778-275-3 from: 1 to: 868

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5 GlyArgLysSerArgValValAspLeuAsnLeuLeuThr.....GluG1 19
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274 GGAAGAAGGAGC.....CTGGTTCCCTGACCATTTGCTGAGCC 311
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19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
::: :|||:|
312 GGCCATGATCGCCGAGTGAAGACGCGCACCGAGGTGTTCGAGATCTCC. 360
|||||:|||||
34 leArgGluGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
|||||:|||||
361 ..CGGCGCCTCATAGACCGCACCAACGCAACTTCTGTGTGGCGGCC 408
|||||:|||||
49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAs 65
|||||:|||||
409 TGTGTGAGGTGCAGCGCTGCTCGGC.....TGCTGC.....AA 443
|||||:|||||
65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHisG 82
|||||:|||||
444 CAACCGCAACGTGCAGTGCAGCGCCGCCACCCAGGTG..... 477
|||||:|||||
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
|||||:|||||
478 .....CAGCTGCGACCTGTCCAGGTGAGAAAGATCGAGATTGTGCGG 519
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93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
::: :|||:|
520 AAGAAGCAATCTTTAAGAAGGCGACG...GTGACGCTGGAAGACCACT 566
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108 uGluCysAspCys 112
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seq_name: /cgn2_6/ptodata/2/ina/6A_COMB.seq:US-08-867-352-3

seq_documentation_block:

; Sequence 3, Application US/08867352

; Patent No. 6060273

; GENERAL INFORMATION:

; APPLICANT:

; TITLE OF INVENTION: Multicistronic expression units and their use

; NUMBER OF SEQUENCES: 25

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPA)

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/867,352

; FILING DATE:

; CLASSIFICATION:

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/387,847

; FILING DATE:

; INFORMATION FOR SEQ ID NO: 3:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 868 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: cDNA
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; IMMEDIATE SOURCE:
; CLONE: PMW-2 (Weich et al., 1986)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 40..762
; OTHER INFORMATION: /product= "PDGF-B
; OTHER INFORMATION: precursor sequence"
; OTHER INFORMATION: /note= "human PDGF-B gene from pGEM2-PDGF-B,
; OTHER INFORMATION: flanked by 5'-EcoRI und 3'-HindIII
; OTHER INFORMATION: restriction cleavage sites"
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 283..609
; OTHER INFORMATION: /product= "mature PDGF-B chain"
; PUBLICATION INFORMATION:
; AUTHORS: Weich, H. A.
; AUTHORS: Sebald, W.
; AUTHORS: Schairer, H. U.
; AUTHORS: Hoppe, U.
; JOURNAL: FEBS Lett.
; VOLUME: 198
; PAGES: 344-348
; DATE: 1986
; US-08-867-352-3

alignment_scores:

Quality: 108.00 Length: 121
Ratio: 1.636 Gaps: 11
Percent Similarity: 54.545 Percent Identity: 34.711

alignment_block:

US-09-457-066-2_COPY_226_345 x US-08-867-352-3 ..

Align seg 1/1 to: US-08-867-352-3 from: 1 to: 868

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5 GlyArgLysSerArgValValAspLeuAsnLeuLeuThr.....GluG1 19
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274 GGAAGAAGGAGC.....CTGGTTCCCTGACCATTTGCTGAGCC 311
|||||:|||||
19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
::: :|||:|
312 GGCCATGATCGCCGAGTGAAGACGCGCACCGAGGTGTTCGAGATCTCC. 360
|||||:|||||
34 leArgGluGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
|||||:|||||
361 ..CGGCGCCTCATAGACCGCACCAACGCAACTTCTGTGTGGCGGCC 408
|||||:|||||
49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAs 65
|||||:|||||
409 TGTGTGAGGTGCAGCGCTGCTCGGC.....TGCTGC.....AA 443
|||||:|||||
65 nCysAsnGluCysGlnCysValProSerLysValThrLysLysTyrHisG 82
|||||:|||||
444 CAACCGCAACGTGCAGTGCAGCGCCGCCACCCAGGTG..... 477
|||||:|||||
82 luValLeuGlnLeuArgPro.....LysThrGlyVal..... 92
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478 .....CAGCTGCGACCTGTCCAGGTGAGAAAGATCGAGATTGTGCGG 519
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93 ...ArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisG1 108
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520 AAGAAGCAATCTTTAAGAAGGCGACG...GTGACGCTGGAAGACCACT 566
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; Patent No. 6017731
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
; STREET: 3605 Glenwood Ave. Suite 310
; CITY: Raleigh
; STATE: NC
; COUNTRY: US
; ZIP: 27622
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/989,251
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Spruill, W. Murray
; REGISTRATION NUMBER: 32,943
; REFERENCE/DOCKET NUMBER: 5784-4
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919 420 2202
; TELEFAX: 919 881 3175
; INFORMATION FOR SEQ ID NO: 28:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1320 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: other nucleic acid
; DESCRIPTION: /desc = "Synthetic chimera"
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens/Saccharomyces cerevisiae
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 454..1179
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 454..519
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; OTHER INFORMATION: /standard_name= "PDGF-B presequence"
; FEATURE:
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; OTHER INFORMATION: transport"
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Percent Similarity: 54.545 Percent Identity: 34.711
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19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
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726 GGCCATGATCGCGCGAGTGCAGACGCGCAGGAGGTGTCGAGATCTCC. 774
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49 CysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAs 65
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seq_documentation_block:
; Sequence 28, Application US/09340250
; Patent No. 6083723
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; TITLE OF INVENTION: PROTEINS IN YEAST
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
; STREET: 3605 Glenwood Ave. Suite 310
; CITY: Raleigh
; STATE: NC
; COUNTRY: US
; ZIP: 27622
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/340,250
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/989,251
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Spruill, W. Murray
; REGISTRATION NUMBER: 32,943
; REFERENCE/DOCKET NUMBER: 5784-4
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TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919 420 2202
 TELEFAX: 919 881 3175
 INFORMATION FOR SEQ ID NO: 28:
 SEQUENCE CHARACTERISTICS:
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 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: other nucleic acid
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 ORIGINAL SOURCE:
 ORGANISM: Homo sapiens/Saccharomyces cerevisiae
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 454..1179
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: 454..519
 OTHER INFORMATION: /product= "PDGF-B prepeptide"
 OTHER INFORMATION: /standard_name= "PDGF-B presequence"
 FEATURE:
 NAME/KEY: transit_peptide
 LOCATION: 455..696
 OTHER INFORMATION: /function= "mediates protein
 OTHER INFORMATION: transport"
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 OTHER INFORMATION: /standard_name= "PDGF-B presequence"
 US-09-340-250-28

alignment_scores:
 Quality: 108.00 Length: 121
 Ratio: 1.836 Gaps: 11
 Percent Similarity: 54.545 Percent Identity: 34.711
 alignment_block:
 US-09-457-066-2_COPY_226_345 x US-09-340-250-28 ..
 Align seg 1/1 to: US-09-340-250-28 from: 1 to: 1320
 5 GlyArgLysSerArgValValAspLeuAsnLeuLeuThr.....GluG1 19
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 688 GGAAGAAGGAGC.....CTGGGTTCCTGACCATTCGTGAGCC 725
 19 uValArgLeuTyrSerCysThrProArgAsn.....PheSerValSerI 34
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 726 GGCCATGATCGCGAGTGCAAGACGCCGCCAGGTGTCGAGATCTCC. 774
 34 leArgGluLeuLysArgThrAspThrIlePhe.....TrpProGly 48
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2	110	16.5	166	2	JN0248	platelet-derived growth factor
3	110	16.5	198	2	JS0735	platelet-derived growth factor
4	108	16.2	241	1	PFHUG2	platelet-derived growth factor
5	106	15.9	200	2	IS1551	platelet-derived growth factor
6	106	15.9	215	2	S08220	platelet-derived growth factor
7	106	15.9	226	2	IS1550	platelet-derived growth factor
8	105	15.8	245	1	TVCTSS	platelet-derived growth factor
9	104.5	15.7	232	2	A41551	vascular endothelial cell
10	104	15.6	196	2	B28964	platelet-derived growth factor
11	104	15.6	197	2	S25096	platelet-derived growth factor
12	104	15.6	211	1	PFHUG1	platelet-derived growth factor
13	104	15.6	226	1	TVMVSS	PDGF-related transcription factor
14	102.5	15.4	133	2	B49530	vascular endothelial cell
15	102.5	15.4	190	2	S52130	vascular endothelial cell
16	102.5	15.4	196	2	A37359	platelet-derived growth factor
17	102.5	15.4	196	2	A48851	platelet-derived growth factor
18	102.5	15.4	419	2	S69207	vascular endothelial cell
19	101.5	15.2	120	2	A33787	vascular endothelial cell
20	101.5	15.2	146	2	S57956	ovine vascular endothelial cell
21	101.5	15.2	190	2	B40080	vascular endothelial cell
22	97	14.6	188	2	JC4680	vascular endothelial cell
23	97	14.6	207	2	JC4679	vascular endothelial cell
24	96.5	14.5	190	2	A35987	glioma-derived vascular endothelial cell
25	95.5	14.3	190	2	B44881	vascular endothelial cell
26	95.5	14.3	214	2	A44881	vascular endothelial cell
27	94	14.1	225	2	S25097	platelet-derived growth factor
28	94	14.1	241	1	PFWSGB	platelet-derived growth factor
29	88	13.2	271	2	A25669	PDGF-related transcription factor

A;Cross-references: GB:M23238; NID:g214650; PIDN:AAA9928.1; PID:g214651
C;Superfamily: platelet-derived growth factor

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QY 6 RKSrvDNLlLTERVRLYSCTPRNFVSII-REELKRTDTIF--WPGCLLVKRGGNCACC 62
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Db 88 RRKRSV-----EEAIPAICKTRTVIYEIPRSDIPTSANFLIWPPCVVKRCTG---CC 138
 | : | | |
QY 63 LHNECOQCVPskVTKKYH-----EVLQLRPKTGVGRGLHKSLTDVALEHHHEECDCVC 114
 | : | | |
Db 139 --NTSSVKCPQSRI---HHRSVKVAKVEYVRKKPK-----LKEVL--VRLEEHL ECTCTA 186

QY 115 RGST 118
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Db 187 NSNS 190

RESULT 6
S08220
platelet-derived growth factor chain A precursor - African clawed frog
C;Species: xenopus laevis (African clawed frog)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 16-Jul-1999
C;Accession: S08220
R;Bejcek, B.E.; Li, D.Y.; Deuel, T.F.
Nucleic Acids Res. 18, 680, 1990
A;Title: Nucleotide sequence of a cDNA clone of Xenopus platelet-derived growth facto
A;Reference number: S08220; MUId:90175018
A;Accession: S08220
A>Status: translation not shown
A:Molecule type: mRNA
A:Residues: 1-215 <BEJ>
C;Cross-references: EMBl:X17545; NID:g64973; PIDN:CAA35583.1; PID:g64974
C;Superfamily: platelet-derived growth factor
C;Keywords: alternative splicing; growth factor
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-91/Domain: propeptide #status predicted <PRO>
F;92-215/Product: platelet-derived growth factor chain A #status predicted <MAT>

Query Match 15.9%; Score 106; DB 2; Length 215;
Best Local Similarity 30.6%; Pred. No. 0.0028;
Matches 38; Conservative 15; Mismatches 39; Indels 32; Gaps 9;

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Db 88 RRKRSV-----EEAIPAICKTRTVIYEIPRSDIPTSANFLIWPPCVVKRCTG---CC 138
 | : | | |
QY 63 LHNECOQCVPskVTKKYH-----EVLQLRPKTGVGRGLHKSLTDVALEHHHEECDCVC 114
 | : | | |
Db 139 --NTSSVKCPQSRI---HHRSVKVAKVEYVRKKPK-----LKEVL--VRLEEHL ECTCTA 186

QY 115 RGST 118
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Db 187 NSNS 190

RESULT 7
I51550
platelet-derived growth factor A chain long form precursor - African clawed frog
C;Species: xenopus laevis (African clawed frog)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999
C;Accession: I51550
R;Mercola, M.; Melton, D.A.; Stiles, C.D.
Science 241, 1223-1225, 1988
A;Title: Platelet-derived growth factor A chain is maternally encoded in Xenopus embri
A;Reference number: I51550; MUId:88321676
A;Accession: I51550
A>Status: preliminary;
A:Molecule type: mRNA
translated from gb/EMBL/DDBJ

QY 79 KYHEVLQRPKTCVRCLHKS LSLTDVALEHHEECDC 112
| : | | : : : | | | | |
Db 151 KVAKVEYVRKPKLKEV - - - QVRLEHLECAC 179

A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 152-211 <BO2>
R; Betsholtz, C.; Johnson, A.; Heldin, C.H.; Westermark, B.; Lili
Nature 320, 695-699, 1986
A; Title: cDNA sequence and chromosomal localization of human p15

A:Reference number: A01379; MUID:86203630
A:Accession: A01379
A:Molecule type: mRNA
A:Residues: 1-211 <BET>
A:Cross-references: GB:X03795; NID:g35365; PIDN:CAA27421.1; PID:g35366
A:Experimental source: clonal glioma cell line U-343 MGA12:6, a tumor cell line
FEBs Lett. 223, 243-246, 1987
A:Title: The long 3'-untranslated regions of the PDGF-A and -B mRNAs are only distantly
A:Reference number: S00173; MUID:88030061
A:Accession: S00173
A:Molecule type: mRNA
A:Residues: 1-193, 'DVR', <HOP>
A:Cross-references: EMBL:X06374; NID:g35363; PIDN:CAA29677.1; PID:g35364
R:Rossman, F.; Bywater, M.; Knott, T.J.; Scott, J.; Betsholtz, C.
Mol. Cell. Biol. 8, 571-577, 1988
A:Title: Structural characterization of the human platelet-derived growth factor A-chain
A:Reference number: A28122; MUID:88174698
A:Accession: A28122
A:Molecule type: mRNA
A:Residues: 1-63, 'TRD', 67-211 <ROR>
A:Cross-references: GB:M20488
A:Note: the authors translated the codon ACA for residue 64 as Arg, COT for residue 65 as
C:Comment: Platelet-derived growth factor, a potent mitogen for cells of mesenchymal ori
C:Comment: A carboxyl-terminal propeptide may be removed from the precursor by proteolys
C:Genetics:
A:Gene: GDB:PDGFA
A:Cross-references: GDB:120266; OMIM:173430
A:Map position: 7p22-7p22
A:Introns: 21/3; 54/1; 89/1; 151/3; 194/1
C:Complex: homodimer; heterodimer (see PIR:PFHUG2)
C:Superfamily: platelet-derived growth factor
C:Keywords: alternative splicing; glycoprotein; growth factor; mitogen; platelet
E:1-20/Domain: signal sequence #status predicted <SIG>
E:21-86/Domain: propeptide #status predicted <PRO>
F:87-211/Product: platelet-derived growth factor chain A #status predicted <MAT>
F:158-162/Region: receptor binding #status predicted
F:96-140,129-177,133-179/Disulfide bonds: #status predicted
F:123/Disulfide bonds: interchain (to chain B-133 in heterodimeric form) #status predict
F:123/Disulfide bonds: interchain (to 132 in homodimeric form) #status predicted
F:132/Disulfide bonds: interchain (to chain B-124 in heterodimeric form) #status predict
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Db 96 CKTRVIIVEIFRSQVDPTSANFLIWPVPCVEVRCRG--CC--NTSSVRCKQPSRVHRSV 150
QY 79 KYHEVLQRLPKTGVRLGHLKSLTDVALEHHEGDC 112
Db 151 KVAKVEYVRKPKLKEV-----QVRLEHLEAC 179
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TMVWSS
PDGF-related transforming protein (sis) - simian sarcoma virus
N:Alternate names: p28-sis
C:Species: simian sarcoma virus
C:Date: 23-Jul-1993 #sequence_revision 20-Sep-1994 #text_change 31-Oct-1997
C:Accession: A01381
R:Devare, S.G.; Reddy, E.P.; Law, J.D.; Robbins, K.C.; Aaronson, S.A.
Proc. Natl. Acad. Sci. U.S.A. 80, 731-735, 1983
A:Title: Nucleotide sequence of the simian sarcoma virus genome: demonstration that its
A:Reference number: A03982; MUID:83144004
A:Accession: A01381
A:Molecule type: genomic RNA
A:Residues: 1-226 <DEV>
C:Genetics:

A:Gene: sis
C:Superfamily: platelet-derived growth factor
C:Keywords: growth factor; transforming protein
F:6-226/Domain: platelet-derived growth factor chain B similarity <PDG>
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Best Local Similarity 33.3%; Pred. No. 0.0046;
Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;
QY 16 LTEEVRVLSCTPRN--FSVSIREELKRTDTIF--WPGCLLVKRCGGNCACCLHNCNECCQ 71
Db 73 VAEPAMIAECKTRTEVEFIS--RRLIDRTNANFLVMPVPCVEVRCSG--CC--NNRNVCQ 126
QY 72 VPSVTKKYHEVLQRLP---KTGV---RGLHKSITDVALEHHEGDC 112
Db 127 RPTQV-----QLRPVQVRKIEIVRKPIFKKAT--VTLEDHLACK 165
RESULT 14
B49530
vascular endothelial growth factor homolog A2R, 14.7K - Orf virus
C:Species: Orf virus
C:Date: 07-Apr-1994 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
C:Accession: B49530
R:Lytile, D.J.; Fraser, K.M.; Fleming, S.B.; Mercer, A.A.; Robinson, A.J.
J. Virol. 68, 84-92, 1994
A:Title: Homologs of vascular endothelial growth factor are encoded by the poxvirus o
A:Reference number: A49530; MUID:94076465
A:Contents: N22
A:Accession: B49530
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-133 <LIT>
A:Cross-references: GB:S67520; NID:g456897; PIDN:AAB29220.1; PID:g456899
A:Note: sequence inconsistent with nucleotide translation
A:Note: sequence extracted from NCBI backbone (NCBIN:141420, NCBIPI:141425)
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Best Local Similarity 30.5%; Pred. No. 0.004;
Matches 32; Conservative 18; Mismatches 40; Indels 15; Gaps 6;
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Db 28 SEVLKSECKPRPIVVPVSETHPEL--TSQRFNPCCVTLMRGCG--CC--NDESLECV 80
QY 74 SKVTKKYHEVLQRLPKTGVRLGHLKSLTDVALEHHEGDCVCRGST 118
Db 81 TEEVNVTMELLG-ASGSGSNQMQR---LSFVHKKCDRCRPFYT 120
RESULT 15
S52130
vascular endothelial growth factor - pig
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 05-Nov-1999
C:Accession: S52130
R:Sharma, H.S.; Tang, Z.H.; Gho, B.C.G.; Verdouw, P.D.
Biochim. Biophys. Acta 1260, 235-238, 1995
A:Title: Nucleotide sequence and expression of the porcine vascular endothelial growt
A:Reference number: S52130; MUID:95143284
A:Accession: S52130
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-190 <SHA>
A:Cross-references: GB:X81380; NID:g587559; PIDN:CAA57143.1; PID:g587560
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Db 51 CRPIETLVDIFQEYDPDEIEYIFKPCVPLMRCGG---CC--NDEGLECVPTTEFNITMQI 105
Qy 84 LQLRPKTGVRGLHKLSTDVALEHHEECD 112
Db 106 MRIKPHQG-----QHIGEMSFLOHKNKEC 129

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Job time: 57 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 15, 2002, 22:20:38 ; Search time 24.01 Seconds
(without alignments)
183.248 Million cell updates/sec

Title: US-09-457-066-2_COPY_226_345

Perfect score: 666

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BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 100059 seqs, 36664827 residues

Total number of hits satisfying chosen parameters: 100059

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_39:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	114.5	17.2	148	1	VEGH_ORFN7
2	110	16.5	213	1	PDGA_RABIT
3	108.5	16.3	164	1	VEGF_CAVPO
4	108	16.2	241	1	PDGB_HUMAN
5	106	15.9	226	1	PDGA_XENLA
6	105.5	15.8	188	1	VEGB_HUMAN
7	105	15.8	245	1	PDGB_FELCA
8	104.5	15.7	215	1	VEGF_HUMAN
9	104	15.6	204	1	PDGA_RAT
10	104	15.6	211	1	PDGA_HUMAN
11	104	15.6	211	1	PDGA_MOUSE
12	104	15.6	226	1	TSIS_SMSAV
13	102.5	15.4	133	1	VEGH_ORFN2
14	102.5	15.4	190	1	VEGF_PIG
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16	101.5	15.2	146	1	VEGF_SHEEP
17	101.5	15.2	190	1	VEGF_BOVIN
18	101.5	15.2	415	1	VEGC_MOUSE
19	97	14.6	188	1	VEGB_MOUSE
20	96.5	14.5	190	1	VEGF_RAT
21	95.5	14.3	214	1	VEGF_MOUSE
22	94	14.1	225	1	PDGB_RAT
23	94	14.1	241	1	PDGB_MOUSE
24	88.5	13.3	216	1	VEGF_CHICK
25	88	13.2	241	1	PDGB_SHEEP
26	84	12.6	158	1	PLGF_MOUSE
27	83.5	12.5	5179	1	MUC2_HUMAN
28	79.5	11.9	170	1	PLGF_HUMAN
29	77.5	11.6	3672	1	LML2_CAEEL
30	73	11.0	60	1	MT_CHAAC
31	73	11.0	60	1	MT_PAGBC
32	73	11.0	60	1	MT_PACRC
33	72	10.8	60	1	MT_DICLA

34	72	10.8	171	1	LMB1_HYDAT
35	71.5	10.7	3712	1	LMA_DROME
36	71	10.7	60	1	MT_OREMO
37	71	10.7	60	1	MT_ZOAVI
38	71	10.7	82	1	MT2B_LYCES
39	70.5	10.6	845	1	ITBX_DROME
40	70	10.5	68	1	MT3_HORSE
41	70	10.5	68	1	MT3_PIG
42	69	10.4	60	1	MT_LIZAU
43	69	10.4	82	1	MT21_ORVSA
44	69	10.4	899	1	SUHW_DROVI
45	68.5	10.3	377	1	DCA2_DIACA

ALIGNMENTS

RESULT 1
VEGH_ORFN7
ID VEGH_ORFN7 STANDARD; PRT; 148 AA.
AC P52585;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 20-AUG-2001 (Rel. 40, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR HOMOLOG PRECURSOR.
GN A2R.
OS Orf virus (strain NZ7) (OV N2-7).
OC Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;
OC Parapoxvirus.
OX NCBI_TaxID=73495;
[1]
RN SEQUENCE FROM N.A.
RX MEDLINE=94076465; PubMed=8254780;
RA Lytle D.J., Fraser K.M., Fleming S.B., Mercer A.A., Robinson A.J.;
RT "Homologs of vascular endothelial growth factor are encoded by the
poxvirus orf virus".
RL J. Virol. 68:84-92(1994).
CC -1- FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.
CC -1- SUBUNIT: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
CC
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CC
CC EMBL; S67522; AAB29223.1; -
DR HSSP; P15692; IVPF.
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.
DR ProDom; PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; FALSE_NEG.
DR PROSITE; PS0278; PDGF_2; 1.
DR Mitogen; Growth factor; Glycoprotein; Signal.
FT SIGNAL 1 ?
FT CHAIN ? 148 VASCULAR ENDOTHELIAL GROWTH FACTOR
FT
FT HOMOLOG
FT DISULFID 46 88 BY SIMILARITY.
FT DISULFID 77 130 BY SIMILARITY.
FT DISULFID 81 132 BY SIMILARITY.
FT DISULFID 71 71 INTERCHAIN (BY SIMILARITY).
FT DISULFID 80 80 INTERCHAIN (BY SIMILARITY).
FT CARBOHYD 95 95 N-LINKED (GLCNAC...) (POTENTIAL).
SQ SEQUENCE 148 AA; 16078 MW; F0E13BA104CC73F8 CRC64;

Query Match 17.2%; Score 114.5; DB 1; Length 148;
Best Local Similarity 30.2%; Pred No. 4.6e-05;
Matches 29; Conservative 19; Mismatches 43; Indels 5; Gaps 3;

Submitted (OCT-1996) to the EMBL/GenBank/DBJ databases.

[8] SEQUENCE OF 1-53 FROM N.A.

RP MEDLINE=97141927; Pubmed=8988177;

RA Minom M.-P., Pedetour F., Sirvent N., Grosgeorge J., Minoletti F.,

RA Colindre J.-M., Terrier-Lacombe M.-J., Mandahl N., Craver R.D.,

RA Blin N., Sozi G., Turc-Carel C., O'Brien K.P., Kedra D.,

RA Fransson I., Guilbaud C., Dumanski J.P.;

RT "Deregulation of the platelet-derived growth factor B-chain gene via

RT fusion with collagen gene COL1A1 in dermatofibrosarcoma protuberans

RT and giant-cell-fibroblastoma.";

RA Nat. Genet. 15:95-98(1997).

RL [9]

RP SEQUENCE OF 26-241 FROM N.A.

RP MEDLINE=86164981; Pubmed=3456904;

RA Weich H.A., Sebald W., Schairer H.U., Hoppe J.;

RT "The human osteosarcoma cell line U-2 OS expresses a 3.8 kilobase

RT mRNA which codes for the sequence of the PDGF-B chain.";

RA FEBS Lett. 198:344-348(1986).

RL [10]

RP SEQUENCE OF 153-200 FROM N.A., AND PARTIAL SEQUENCE.

RP MEDLINE=84236121; Pubmed=6329745;

RA Johnsson A., Heldin C.H., Wasteson A., Westermark B., Deuel T.F.,

RA Huang J.S., Seeberg P.H., Gray A., Ullrich A., Scrace G.,

RA Stroobant P., Waterfield M.D.;

RT "The c-sis gene encodes a precursor of the B chain of

RT platelet-derived growth factor.";

RA EMBO J. 3:921-928(1984).

RL [11]

RP SEQUENCE OF 82-110.

RP MEDLINE=83197379; Pubmed=6844921;

RA Antonlades H.N., Hunkapiller M.W.;

RT "Human platelet-derived growth factor (PDGF): amino-terminal amino

RT acid sequence.";

RA Science 220:963-965(1983).

RL [12]

RP SEQUENCE OF 82-112.

RP MEDLINE=83244981; Pubmed=6306471;

RA Waterfield M.D., Scrace G.T., Whittle N., Stroobant P., Johnsson A.,

RA Wasteson A., Westermark B., Heldin C.H., Huang J.S., Deuel T.F.;

RT "Platelet-derived growth factor is structurally related to the

RT putative transforming protein p28sis of simian sarcoma virus.";

RA Nature 304:35-39(1983).

RL [13]

RP MUTAGENESIS, & IMPORTANCE OF ARG-108 AND ILE-111 FOR RECEPTOR-BINDING

RP MEDLINE=92097530; Pubmed=1661670;

RA Clements J.M., Bowden L.J., Bloxidge R.E., Catlin G., Cook A.L.,

RA Craig S., Drummond A.H., Edwards R.M., Fallon A., Green D.R.,

RA Hellewell P.G., Kirwin P.M., Nayee P.D., Richardson S.J., Brown D.,

RA Chahwala S.B., Snarey M., Winslow D.;

RT "Two PDGF-B chain residues, arginine 27 and isoleucine 30, mediate

RT receptor binding and activation.";

RA EMBO J. 10:4113-4120(1991).

RL [14]

RP INTERCHAIN DISULFIDE BONDS.

RP MEDLINE=92283833; Pubmed=1317862;

RA Andersson M., Oestman A., Baeckstroem G., Hellman U.,

RA George-Nascimento C., Westermark B., Heldin C.H.;

RT "Assignment of interchain disulfide bonds in platelet-derived growth

RT factor (PDGF) and evidence for agonist activity of monomeric PDGF.";

RA J. Biol. Chem. 267:11260-11266(1992).

RL [15]

RP X-RAY CRYSTALLOGRAPHY (3.0 ANGSTROMS).

RP MEDLINE=93010987; Pubmed=1395586;

RA Oefner C., D'Arcy A., Winkler F.K., Eggmann B., Hosang M.;

RT "Crystal structure of human platelet-derived growth factor BB.";

RA EMBO J. 11:3921-3926(1992).

CC -!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR

CC CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO IT

CC AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS

CC RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE

CC IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND

CC -!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NOIDENTICAL (A

CC AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
CC TRANSFORMATION PROCESSES.
CC -!- PHARMACEUTICAL: AVAILABLE UNDER THE NAME REGRANEX (ORTHO-MCNEIL).
CC USED TO PROMOTE HEALING IN DIABETIC NEUROPATHIC FOOT ULCERS.
CC -!- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE
CC PDGF RECEPTOR.
CC -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
CC -!- DATABASE: NAME=Rad Systems' cytokine source book;
CC WWW="http://www.rndsystems.com/cyt_cat/pdgm.html".
CC -!- DATABASE: NAME=Regranex; NOTE=Clinical information on Regranex;
CC WWW="http://www.regranex.com/".
CC -----
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CC -----
DR EMBL; K01401; AAA60552.1; JOINED.
DR EMBL; K01918; AAA60552.1; JOINED.
DR EMBL; J00121; AAA60552.1; JOINED.
DR EMBL; K01398; AAA60552.1; JOINED.
DR EMBL; K01399; AAA60552.1; JOINED.
DR EMBL; K01400; AAA60552.1; JOINED.
DR EMBL; K02811; CAA26579.1; JOINED.
DR EMBL; M12783; AAA60553.1; JOINED.
DR EMBL; M02744; CAA26524.1; JOINED.
DR EMBL; K01917; AAA98793.1; JOINED.
DR EMBL; K01913; AAA98793.1; JOINED.
DR EMBL; K01914; AAA98793.1; JOINED.
DR EMBL; K01915; AAA98793.1; JOINED.
DR EMBL; K01916; AAA98793.1; JOINED.
DR EMBL; X03702; CAA27333.1; JOINED.
DR EMBL; Z81010; CAB02635.1; JOINED.
DR EMBL; X00561; CAA25228.1; JOINED.
DR EMBL; X00561; CAA25229.1; JOINED.
DR EMBL; X98706; CAA67262.1; JOINED.
DR PIR; A94276; PFHUG2.
DR PDB; 1PDB; 31-JAN-94.
DR MIM; 190040; -.
DR InterPro; IPR002400; GF_cysknot.
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.
DR PRINTS; PR00438; GF_CYSKNOT.
DR PRODOM; PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS0278; PDGF_2; 1.
KW Mitogen; Growth factor; Proto-oncogene; Platelet; Signal;
KW Pharmaceutical; 3D-structure.
FT SIGNAL 1 20
FT PROPEP 21 81
FT CHAIN 82 190
FT PROPEP 191 241
FT SITE 108 108
FT SITE 111 111
FT SITE 111 111
FT DISULFID 97 141
FT DISULFID 130 178
FT DISULFID 134 180
FT DISULFID 124 124
FT DISULFID 133 133
FT DISULFID 21 21
FT CONFLICT 101 101
FT CONFLICT 105 105
FT CONFLICT 107 107
Query Match 16.2%; Score 108; DB 1; Length 241;
Best Local Similarity 34.7%; Pred. NO. 0.00035;
Matches 42; Conservative 12; Mismatches 35; Indels 32; Gaps 11;
QY 5 GRKSRVVDNLNLT--EEVRLYSCTPRN--FSVSIRELKRTDTIF--WPGCLLVKRCGGN 58

Db 79 GRRS-----LGLTTPAEPAMIAECKTRTEVFEIS--RLIDRTNANFLVMPPCVEVQRCSG- 132
QY 59 CACCLHNCNECQVPSKTKYKHYVLQLRP-----RTGV---RGLHKSITDVALEHHEED 111
Db 133 --CC--NNRNVCRTQV-----QLRPQVVKIEIVRKPKIFKKAT-VTLEDHLACK 179
QY 112 C 112
Db 180 C 180
RESULT 5
PDGA_XENLA
ID PDGA_XENLA STANDARD; PRT; 226 AA.
AC P13698;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 20-AUG-2001 (Rel. 40, Last annotation update)
DE PLATELET-DERIVED GROWTH FACTOR, A CHAIN PRECURSOR (PDGF A-CHAIN)
DE (PDGFA).
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidea; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8355;
[1]
RP SEQUENCE FROM N.A.
RC TISSUE-Oocyte;
RX MEDLINE=88321676; PubMed=3413486;
RA Mercola M., Melton D.A., Stiles C.D.;
RT "Platelet-derived growth factor A chain is maternally encoded in
RT Xenopus embryos";
RL Science 241:1223-1225(1988).
[2]
RP SEQUENCE FROM N.A.
RC TISSUE-Oocyte;
RX MEDLINE=90175018; PubMed=2308861;
RA Bejcek B.E., Li D.Y., Deuel T.F.;
RT "Nucleotide sequence of a cDNA clone of Xenopus platelet-derived
RT growth factor A-chain";
RL Nucleic Acids Res. 18:680-680(1990).
CC -!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR
CC CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS
CC AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS
CC RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE
CC IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.
CC -!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A
CC AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
CC TRANSFORMATION PROCESSES.
CC -!- ALTERNATIVE PRODUCTS: 2 ISOFORMS; A LONG FORM (SHOWN HERE) AND A
CC SHORT FORM; ARE PRODUCED BY ALTERNATIVE SPLICING. THE LONG FORM
CC CONTAINS A BASIC INSERT WHICH ACTS AS A CELL RETENTION SIGNAL.
CC -!- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE
CC PDGF RECEPTOR.
CC -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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CC -----
DR EMBL; M23237; AAA49927.1; -.
DR EMBL; M23238; AAA49928.1; -.
DR EMBL; X17545; CAA35583.1; -.
DR PIR; S08220; S08220.
DR HSSP; P01127; lPDG.
DR InterPro; IPR002400; GF_cysknot.
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.

```

DR PRINTS: PR00438; GFCYSKNOT.
DR PRODOM: PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS00278; PDGF_2; 1.
KW Glycoprotein; Mitogen; Growth factor; Platelet; Alternative splicing;
KW Signal.
FT SIGNAL. 1 22
FT PROPEP 23 91
FT CHAIN 92 226
FT DISULFID 101 145
FT DISULFID 134 182
FT DISULFID 138 184
FT DISULFID 138 184
FT DISULFID 137 137
FT CARBOHYD 139 200
FT VARSPLIC 198 201
FT VARSPLIC 201 226
FT CONFLICT 199 209
FT CONFLICT 218 218
SQ SEQUENCE 226 AA; 257119 MW; E3E724FCF67C2FB2 CRC64;

Query Match 15.9%; Score 106; DB 1; Length 226;
Best Local Similarity 30.6%; Pred. No. 0.00053;
Matches 38; Conservative 15; Mismatches 39; Indels 32; Gaps 9;

QY 6 RKSRRVVDLNLLEEVRLYSCTPRNFVSIVT-REELKRTDTIF--WPGCLLVKRCGGNCACC 62
DB 88 RRRSV-----EEAVPAICKTNTVIYIPRSQIDTPTSANFLIWPCCVEVKRCTG----CC 138
QY 63 LHCNECQCVPKSKYKHYH-----EVLQLRPKTVGRLKSLTDVALEHHEECDCVC 114
DB 139 --NTSSVKQPSRI---HRSVKVAKVEYRKPK-----LKEVL--VRLLEEHECTCTA 186
QY 115 RGST 118
DB 187 NSNS 190

RESULT 6
VEGB_HUMAN
ID VEGF_HUMAN STANDARD; PRT; 188 AA.
AC P49765;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 20-AUG-2001 (Rel. 40, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-B) (VEGF RELATED
DE FACTOR).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96197355; PubMed=8637916;
RA Olofsson B., Pajusola K., Kaipainen A., von Euler G., Joukov V.,
RA Saksela O., Orpana A., Pettefsson R.F., Alitalo K., Eriksson U.;
RT "Vascular endothelial growth factor B, a novel growth factor for
RT endothelial cells.";
RL Proc. Natl. Acad. Sci. U.S.A. 93:2576-2581(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=97077124; PubMed=8919691;
RA Grimmond S., Lagercrantz J., Drinkwater C., Silins G., Townson S.,
RA Pollock P., Gotley D., Carson E., Rakar S., Nordenskjold M., Ward L.,
RA Hayward N., Weber G.;
RT "Cloning and characterization of a novel human gene related to
RT vascular endothelial growth factor.";
RL Genome Res. 6:124-131(1996).
CC -!- FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS. BINDS HEPARIN.
CC -!- SUBUNIT: HOMODIMER; DISULFIDE-LINKED. CAN ALSO FORM HETERODIMER

```

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CC WITH VEGF.
CC -!- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
CC TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN.
CC -!- TISSUE SPECIFICITY: EXPRESSED IN ALL TISSUES EXCEPT LIVER.
CC HIGHEST LEVELS FOUND IN HEART, SKELETAL MUSCLE AND PANCREAS.
CC -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
CC -----
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CC -----
DR EMBL; U48801; AAB06274.1; -
DR EMBL; U43369; AAB91463.1; -
DR HSP; P15692; IVPF.
DR MIN; 601398; -
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.
DR ProDom; PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS00278; PDGF_2; 1.
KW Mitogen; Growth factor; Signal; Heparin-binding.
FT SIGNAL 1 21
FT CHAIN 22 188 VASCULAR ENDOTHELIAL GROWTH FACTOR B.
FT SEQUENCE 188 AA; 21261 MW; F04654D5A3727194 CRC64;

Query Match 15.8%; Score 105.5; DB 1; Length 188;
Best Local Similarity 28.2%; Pred. No. 0.00049;
Matches 31; Conservative 22; Mismatches 40; Indels 17; Gaps 6;

QY 5 GRKSRVVD-LNLLTEEVRLYSCTPRNFVSIVT-REELKRT-DTIFWPGCLLVKRCGGNCACC 62
DB 30 GHRKVVSWIDVYTRA----TCQPREVVVPLTVELMGTVAKQLVPCVTVQRCGG---CC 82
QY 63 LHCNECQCVPKSKYKHYHVLQLRPKTVGRLKSLTDVALEHHEECDC 112
DB 83 PD--DGLQCVPTGQHVQRMQILIRYPS-----SQLGEMSLSEHSQCEC 124

RESULT 7
PDGB_FELCA
ID PDGB_FELCA STANDARD; PRT; 245 AA.
AC P12919;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-OCT-1989 (Rel. 12, Last sequence update)
DT 20-AUG-2001 (Rel. 40, Last annotation update)
DE PLATELET-DERIVED GROWTH FACTOR, B CHAIN PRECURSOR (PDGF B-CHAIN)
DE (PDGF) (C-SIS) (PDGF-2).
GN PDGFB OR SIS.
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX NCBI_TaxID=9685;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=87146463; PubMed=3822831;
RA van den Ouweland A.M.W., van Groningen J.J.M., Schalken J.A.,
RA van Neck H.W., Bloemers H.P.J., van de Ven W.J.M.;
RT "Genetic organization of the c-sis transcription unit.";
RL Nucleic Acids Res. 15:959-970(1987).
RN [2]
RP REVISIONS.
RA van den Ouweland A.M.W.;
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR
CC CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS
CC AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS
CC RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE

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```

CC CC      IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.
CC CC      -!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A
CC CC      AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
CC CC      TRANSFORMATION PROCESSES.
CC CC      -!- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE
CC CC      PDGF RECEPTOR.
CC CC      -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
CC CC      -----
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CC CC      or send an email to license@isb-sib.ch).
CC CC      -----
CC CC      EMBL: X05112; CAA28758.1; ALT_SEQ.
CC CC      PIR: A26402; TVCTSS.
CC CC      HSSP: P01127; IPDG.
CC CC      InterPro: IPR002400; GF_cysknot.
CC CC      InterPro: IPR000072; PDGF.
CC CC      Pfam: PF00341; PDGF; 1.
CC CC      PRINTS: PR00438; GFCYSKNOT.
CC CC      ProDom: PD001629; PDGF; 1.
CC CC      SMART: SM00141; PDGF; 1.
CC CC      PROSITE: PS00249; PDGF_1; 1.
CC CC      PROSITE: PS00278; PDGF_2; 1.
CC CC      Mitogen: Growth factor; Proto-oncogene; Platelet; Signal.
CC CC      SIGNAL 1 20 BY SIMILARITY.
CC CC      PROPEP 21 80
CC CC      CHAIN 82 194 PLATELET-DERIVED GROWTH FACTOR, B CHAIN.
CC CC      PROPEP 195 245
CC CC      DISULFID 101 145 BY SIMILARITY.
CC CC      DISULFID 134 182 BY SIMILARITY.
CC CC      DISULFID 138 184 BY SIMILARITY.
CC CC      DISULFID 128 138 INTERCHAIN (BY SIMILARITY).
CC CC      DISULFID 137 137 INTERCHAIN (BY SIMILARITY).
CC CC      SEQUENCE 245 AA; 27787 MW; E715291D9837512 CRC64;
SQ

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Query Match 15.8%; Score 105; DB 1; Length 245;
Best Local Similarity 33.0%; Pred. No. 0.00072;
Matches 35; Conservative 13; Mismatches 36; Indels 22; Gaps 8;

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QY 16 LIEEVRLYSCTPRN--FSVSIREELKRTDTIF--WPGCLLVKRGCGNACCLHNCNEQC 71
: | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 92 VAEPMIAECKTRTEFEVS--RLIDRTNANFLWPPCEVQRCSG---CC--NNRNVCQ 145

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QY 72 VPSKVTKKY-----HEVLQLRPKTVGRGLHKLSTDALEHHEECDC 112
|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db 146 RPTQVQLRLVQVRKIEIVRKRP-----VFKKAT-VTLEDHLACKC 184

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RESULT 8
VEGF_HUMAN STANDARD; PRT; 215 AA.
AC P15692;
DT 01-APR-1990 (Rel. 14, Created)
DT 01-APR-1990 (Rel. 14, Last sequence update)
DT 20-AUG-2001 (Rel. 40, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGFR) (VASCULAR
DE PERMEABILITY FACTOR) (VPF).
GN VEGF OR VEGFA.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]

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```

RP SEQUENCE FROM N.A.
RX MEDLINE=90069608; PubMed=2479986;
RA Leung D.W., Cachianes G., Kuang W.-J., Goeddel D.V., Ferrara N.;
RT "Vascular endothelial growth factor is a secreted angiogenic
RT mitogen.";

```

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RL Science 246:1306-1309(1989).
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RX MEDLINE=90069609; PubMed=2479987;
RA Keck P.J., Hauser S.D., Krivi G., Sanzo K., Warren T., Feder J.,
RA Connolly D.T.;
RT "Vascular permeability factor, an endothelial cell mitogen related to
RT PDGF.";
RL Science 246:1309-1312(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=91268072; PubMed=1711045;
RA Tischer E., Mitchell R., Hartman T., Silva M., Gospodarowicz D.,
RA Fiddes J.C., Abraham J.A.;
RT "The human gene for vascular endothelial growth factor. Multiple
RT protein forms are encoded through alternative exon splicing.";
RL J. Biol. Chem. 266:11947-11954(1991).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE=92231879; PubMed=1567395;
RA Weindel K., Marne D., Weich H.A.;
RT "AIDS-associated Kaposi's sarcoma cells in culture express vascular
RT endothelial growth factor.";
RL Biochem. Biophys. Res. Commun. 183:1167-1174(1992).
RN [5]
RP PRELIMINARY SEQUENCE OF 27-36; 43-50 AND 59-81.
RX MEDLINE=90062112; PubMed=2584205;
RA Connolly D.T., Olander J.V., Heuvelman D., Nelson R., Monsell R.,
RA Siegel N., Haymore B.L., Leimgruber R., Feder J.;
RT "Human vascular permeability factor. Isolation from U937 cells.";
RL J. Biol. Chem. 264:20017-20024(1989).
RN [6]
RP SEQUENCE OF 27-41.
RX MEDLINE=93145946; PubMed=7678805;
RA Fiebig B.L., Jaeger B., Schoellmann C., Weindel K., Wiltling J.,
RA Kochs G., Marne D., Hug H., Weich H.A.;
RT "Synthesis and assembly of functionally active human vascular
RT endothelial growth factor homodimers in insect cells.";
RL Eur. J. Biochem. 211:19-26(1993).
RN [7]
RP X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS) OF 34-135.
RX MEDLINE=97352774; PubMed=9207067;
RA Muller Y.A., Li B., Christinger H.W., Wells J.A., Cunningham B.C.,
RA de Vos A.M.;
RT "Vascular endothelial growth factor: crystal structure and functional
RT mapping of the kinase domain receptor binding site.";
RL Proc. Natl. Acad. Sci. U.S.A. 94:7192-7197(1997).
RN [8]
RP X-RAY CRYSTALLOGRAPHY (1.93 ANGSTROMS) OF 34-135.
RX MEDLINE=98035455; PubMed=9351807;
RA Muller Y.A., Christinger H.W., Keyt B.A., de Vos A.M.;
RT "The crystal structure of vascular endothelial growth factor (VEGF)
RT refined to 1.93-A resolution: multiple copy flexibility and receptor
RT binding.";
RL Structure 5:1325-1338(1997).
RN [9]
RP X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS) OF 39-134.
RX MEDLINE=99119204; PubMed=9922142;
RA Wiesmann C., Christinger H.W., Cochran A.G., Cunningham B.C.,
RA Fairbrother W.J., Keenan C.J., Meng G., de Vos A.M.;
RT "Crystal structure of the complex between VEGF and a receptor-blocking
RT peptide.";
RL Biochemistry 37:17765-17772(1998).
RN [10]
RP STRUCTURE BY NMR OF 34-135.
RX MEDLINE=97477915; PubMed=9336848;
RA Fairbrother W.J., Champe M.A., Christinger H.W., Keyt B.A.,
RA Starovasnik M.A.;
RT "1H, 13C, and 15N backbone assignment and secondary structure of the
RT receptor-binding domain of vascular endothelial growth factor.";
RL Protein Sci. 6:2250-2260(1997).
RN [11]
RP STRUCTURE BY NMR OF 137-215.

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RX MEDLINE=98298440; PubMed=9634701;
 RA Fairbrother W.J., Champe M.A., Christinger H.W., Keyt B.A.,
 RA Starovasnik M.A.;
 RT "Solution structure of the heparin-binding domain of vascular
 RL endothelial growth factor";
 RL Structure 6:637-648(1998).
 CC -!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL
 CC CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR
 CC PERMEABILITY.
 CC -!- SUBUNIT: HOMODIMER; DISULFIDE-LINKED.
 CC -!- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
 CC TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN (BY
 CC SIMILARITY).
 CC -!- ALTERNATIVE PRODUCTS: FOUR FORMS OF VEGF ARE PRODUCED BY
 CC ALTERNATIVE SPLICING OF THE SAME GENE (VEGF-121, VEGF-165,
 CC VEGF-189 AND VEGF-215).
 CC -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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 CC -----
 DR EMBL; M32977; AAA35789.1; -;
 DR EMBL; M27281; AAA36807.1; -;
 DR EMBL; M63978; AAA36804.1; -;
 DR EMBL; M63971; AAA36804.1; JOINED.
 DR EMBL; M63972; AAA36804.1; JOINED.
 DR EMBL; M63973; AAA36804.1; JOINED.
 DR EMBL; M63974; AAA36804.1; JOINED.
 DR EMBL; M63975; AAA36804.1; JOINED.
 DR EMBL; M63976; AAA36804.1; JOINED.
 DR EMBL; M63977; AAA36804.1; JOINED.
 DR EMBL; M62568; CAA44447.1; -;
 DR PIR; A34492; A34492.
 DR PIR; A40079; A40079.
 DR PIR; A40080; A40080.
 DR PIR; A40454; A40454.
 DR PIR; B40454; B40454.
 DR PIR; C40454; C40454.
 DR PIR; JQ1463; JQ1463.
 DR PIR; JQ1464; JQ1464.
 DR PIR; S17348; S17348.
 DR PDB; 1VGH; 08-APR-98.
 DR PDB; 2VGH; 08-APR-98.
 DR PDB; 1VFF; 08-APR-98.
 DR PDB; 2VFF; 29-JUL-98.
 DR PDB; 1VPP; 23-FEB-99.
 DR MIM; 192240; -;
 DR InterPro; IPR000072; PDGF.
 DR Pfam; PF00341; PDGF; 1.
 DR ProDom; PD001629; PDGF; 1.
 DR SMART; SM00141; PDGF; 1.
 DR PROSITE; PS00249; PDGF_1; 1.
 DR PROSITE; PS00278; PDGF_2; 1.
 KW Mitogen; Growth factor; Glycoprotein; Alternative splicing; Signal;
 KW 3D-structure.
 FT SIGNAL 1 26
 FT CHAIN 27 215
 FT DISULFID 52 94
 FT DISULFID 83 128
 FT DISULFID 87 130
 FT DISULFID 77 77
 FT DISULFID 86 86
 FT CARBOHYD 101 101
 FT VARSPPLIC 141 141
 FT VARSPLIC 142 165
 FT VARSPLIC 142 209
 FT VARSPLIC 215 AA; 25173 MW; 7B9759AD5871FF33 CRC64;
 SQ SEQUENCE

Query Match 15.7%; Score 104.5; DB 1; Length 215;
 Best Local Similarity 27.0%; Pred. No. 0.00071;
 Matches 24; Conservative 21; Mismatches 33; Indels 11; Gaps 4;
 Qy 25 CTPNFSVSIREEEL-KRTDITFWPGCLLVKRCGNCACCLHNCNEQCQVPSKVTKYHEV 83
 Db 52 CHPIETLVDFIQEYDPEIEYIFKPSCVPLMRGCG---CC--NDEGLECVPTESNITMOI 106
 Qy 84 LQLREKTVGRGLHKLSDTVALEHHEECDC 112
 Db 107 MRIRPHQG-----OHIGEMSFLOHNRKCEC 130
 RESULT 9
 PDGA_RAT
 ID PDGA_RAT STANDARD; PRT; 204 AA.
 AC P28576;
 DT 01-DEC-1992 (Rel. 24, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 20-AUG-2001 (Rel. 40, Last annotation update)
 DE PLATELET-DERIVED GROWTH FACTOR, A CHAIN PRECURSOR (PDGF A-CHAIN)
 DE (PDGF-1).
 GN PDGFA OR RPAL.
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 OX NCBI-TaxID=10116;
 RN [1]
 RP SEQUENCE OF 8-2024 FROM N.A.
 RX MEDLINE=93305723; PubMed=8318539;
 RA Herren B., Weyer K.A., Rouge M., Loetscher P., Pech M.;
 RT "Conservation in sequence and affinity of human and rodent PDGF
 RT ligands and receptors";
 RL Biochim. Biophys. Acta 1173:294-302(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=93191115; PubMed=8447423;
 RA Katayose D., Ohe M., Yamauchi K., Ogata M., Shirato K., Fujita H.,
 RA Shibahara S., Takishima T.;
 RT "Increased expression of PDGF A- and B-chain genes in rat lungs with
 RT hypoxic pulmonary hypertension";
 RL Am. J. Physiol. 264:L100-L106(1993).
 RN [3]
 RP SEQUENCE FROM N.A. (SHORT FORM).
 RA Xia Y., Feng L., Tang W.W., Wilson C.B.;
 RT "Cloning and expression of rat platelet-derived growth factor
 RT A-chain";
 RL J. Am. Soc. Nephrol. 3:622-622(1992).
 RN [4]
 RP SEQUENCE OF 58-196 FROM N.A. (SHORT FORM).
 RX STRAIN=FISCHER 344; TISSUE=Smooth muscle;
 RC MEDLINE=93225589; PubMed=8469035;
 RA Szabo P., Weksler D., Whittington E., Weksler B.B.;
 RT "The age-dependent proliferation of rat aortic smooth muscle cells is
 RT independent of differential splicing of PDGF A-chain mRNA";
 RL Mech. Ageing Dev. 67:79-89(1993).
 CC -!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR
 CC CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS
 CC AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS
 CC RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE
 CC IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.
 CC -!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A
 CC AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
 CC TRANSFORMATION PROCESSES.
 CC -!- ALTERNATIVE PRODUCTS: 2 ISOFORMS: A LONG FORM (SHOWN HERE) AND A
 CC SHORT FORM; ARE PRODUCED BY ALTERNATIVE SPLICING. THE LONG FORM
 CC CONTAINS A BASIC INSERT WHICH ACTS AS A CELL RETENTION SIGNAL.
 CC -!- DEVELOPMENTAL STAGE: IN KIDNEY EPITHELIAL TISSUES, THE SHORTER
 CC FORM PREDOMINATES IN YOUNG (1 DAY OLD) RATS WHILE THE LONGER FORM
 CC BECOMES MORE PREVALENT DURING AGING.
 CC -!- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE

FT	DISULFID	82	127	BY SIMILARITY.
FT	DISULFID	86	129	BY SIMILARITY.
FT	DISULFID	76	76	INTERCHAIN (BY SIMILARITY).
FT	DISULFID	85	85	INTERCHAIN (BY SIMILARITY).
FT	CARBOHYD	100	100	N-LINKED (GLCNAC--)(POTENTIAL).
SEQ	SEQUENCE	190 AA;	22368 MW;	04D40B8D7913047F CRC64;

Query Match	15.4%;	Score 102.5;	DB 1;	Length 190;		
Best Local Similarity	27.0%;	Pred. No. 0.001;				
Matches	24;	Conservative	20;	Mismatches 34;	Indels 11;	Gaps

QY	25	CTPRNFSVSTREEL-KRTDIFWPGCLLVKRCGNCACCLHHCNEQCVPKSVTKYKHYEV	83
DB	51	CRPIETLVDFIQEYDPDEIEYFKPSCVPLMRCGG---CC--NDEGLECVPTERFNITMQI	105
QY	84	LQLRPKTVGRGLIKSLTDVALEHHCECD	112
DB	106	MRIRKPHOG-----OHIGEMSFLOHNKCEC	129

RESULT	15			
VEGC_HUMAN				
ID	VEGC_HUMAN	STANDARD;	PRT;	419 AA.
AC	P49767;			
DT	01-OCT-1996 (Rel. 34, Created)			
DT	01-OCT-1996 (Rel. 34, Last sequence update)			
DT	20-AUG-2001 (Rel. 40, Last annotation update)			
DE	VASCULAR ENDOTHELIAL GROWTH FACTOR C PRECURSOR (VEGF-C) (VASCULAR			
DE	ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN) (VRP) (FLT4 LIGAND) (FL44-			
DE	L).			
GN	VEGFC.			
OS	Homo sapiens (Human).			
OS	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.			
OC	NCBI_TaxID=9606;			
RN	[1]			
RP	SEQUENCE FROM N.A., AND SEQUENCE OF 103-120.			
RX	MEDLINE=96178224; PubMed=8617204;			
RA	Joukov V., Pajusola K., Kaipainen A., Chilov D., Lahtinen I., Kukk E.,			
RA	Saksela O., Kalkkinen N., Alitalo K.;			
RT	"A novel vascular endothelial growth factor, VEGF-C, is a ligand for			
RT	the Flt4 (VEGFR-3) and KDR (VEGFR-2) receptor tyrosine kinases.";			
RL	EMBO J. 15:290-298(1996).			
RN	[2]			
RP	ERRATUM.			
RX	MEDLINE=96203094; PubMed=8612600;			
RA	Joukov V., Pajusola K., Kaipainen A., Chilov D., Lahtinen I., Kukk E.,			
RA	Saksela O., Kalkkinen N., Alitalo K.;			
RL	EMBO J. 15:1751-1751(1996).			
RN	[3]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE=96312526; PubMed=8700872;			
RA	Lee J., Gray A., Yuan J., Luo S.-M., Avraham H., Wood W.I.;			
RT	"Vascular endothelial growth factor-related protein: a ligand and			
RT	specific activator of the tyrosine kinase receptor Flt4.";			
RL	Proc. Natl. Acad. Sci. U.S.A. 93:1988-1992(1996).			
RN	[4]			
RP	SEQUENCE FROM N.A.			
RA	Fitz L., Morris J.C., Towler P.S., Long A.J., Greco R.,			
RA	Burgess P., Giannotti J., Claretta A., Hennessey D., Kovacic S.,			
RA	Fitzgerald M., Scaltreto H., Welch N., Neben S., Finnerty H.,			
RA	Zoller R., Wang J., Nickbarg E., Gassaway R., Turner K.,			
RA	Wood C.R.;			
RL	Submitted (JUN-1996) to the EMBL/GenBank/DBJ databases.			
CC	-I- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL			
CC	CELL GROWTH.			
CC	-I- SUBUNIT: HOMODIMER: DISULFIDE-LINKED.			
CC	-I- PTM: PROBABLY PROTEOLITICALLY PROCESSED IN THE C-TERMINUS.			
CC	-I- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.			
CC	-----			
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CC -----
DR EMBL; X942116; CAA63907.1; -
DR EMBL; U43142; AAB85214.1; -
DR EMBL; U58111; AAB02909.1; -
DR HSSP; P15692; 1VPF.
DR MIM; 601528; -
DR InterPro; IPR002400; GF_cysknot.
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.
DR PRINTS; PR00438; GFCYSKNOT.
DR PRODOM; PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS0278; PDGF_2; 1.
KW Mitogen; Growth factor; Glycoprotein; Signal; Repeat.
FT SIGNAL 1 ?
FT PROPEP ? 102
FT CHAIN 103 419
FT DOMAIN 275 365
FT REPEAT 275 298
FT REPEAT 299 322
FT REPEAT 323 346
FT REPEAT 347 365
FT CARBOHYD 175 175
FT CARBOHYD 205 205
FT CARBOHYD 240 240
SQ SEQUENCE 419 AA; 46883 MW; 9F598719DB3E014F CRC64;
POTENTIAL.
POTENTIAL.
VASCULAR ENDOTHELIAL GROWTH FACTOR C.
4 X 24 AA TANDEM REPEATS.
1.
2.
3.
4 (PARTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).

Query Match 15.4%; Score 102.5; DB 1; Length 419;
Best Local Similarity 28.2%; Pred. No. 0.0022;
Matches 31; Conservative 15; Mismatches 43; Indels 21; Gaps 6;
QY 13 LNLLEEVRLYSCTPRNFVSIREEL-KRTDTTFWFGCLLVKRCGGNCACCLHNCQC 71
DB 119 LKSIDNEWKTCMPREVCIDVGKEFGVATNTPFKPCVSVYRCGG---CC--NSEGLQC 173
QY 72 V---PSKVTKKYHEV---LQLRPKTVGRGLHKS LTDVALEHHEECDCVCR 115
DB 174 MNTSYLSKTLFEITVPLSQGPKP-----VTISFANHTSCRCMSK 214

Search completed: January 15, 2002, 22:22:37
Job time: 119 sec

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: January 15, 2002, 22:17:38 ; Search time 58.55 Seconds
(without alignments)
299.790 Million cell updates/sec

Title: US-09-457-066-2_COPY_226_345
Perfect score: 666
Sequence: 1 AFVFGKSRVVDLNLLEEV.....DVALEHHEDCVCGRGSGG 120

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 473505 seqs, 146272329 residues

Total number of hits satisfying chosen parameters: 473505

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

- SPTREMBL_17.*
1: sp_archaea.*
2: sp_bacteria.*
3: sp_fungi.*
4: sp_human.*
5: sp_invertebrate.*
6: sp_mammal.*
7: sp_mhc.*
8: sp_organelle.*
9: sp_phage.*
10: sp_plant.*
11: sp_rodent.*
12: sp_virus.*
13: sp_vertebrate.*
14: sp_unclassified.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	666	100.0	345	4 Q9UL22	Q9ul22 homo sapien
2	666	100.0	345	4 Q9NRA1	Q9nra1 homo sapien
3	624	93.7	345	11 Q9QY71	Q9qy71 mus musculus
4	611	91.7	345	11 Q9EQX6	Q9eqx6 rattus norv
5	608	91.3	345	11 Q9JHV8	Q9j hv8 mus musculus
6	585	87.8	345	13 Q9I946	Q9i946 gallus gall
7	324	48.6	290	11 Q9D1L8	Q9d1l8 mus musculus
8	324	48.6	364	4 Q9BRV5	Q9brv5 homo sapien
9	324	48.6	370	4 Q9GZP0	Q9gzp0 homo sapien
10	324	48.6	370	11 Q9EQT1	Q9eqt1 rattus norv
11	180	27.0	34	11 Q99JM4	Q99jm4 mus musculus
12	121.5	18.2	326	11 Q35251	Q35251 rattus norv
13	119.5	17.9	358	11 P97946	P97946 mus musculus
14	115.5	17.3	354	4 O43915	O43915 homo sapien
15	108.5	16.3	148	13 O42571	O42571 xenopus lae
16	108.5	16.3	194	13 O42572	O42572 xenopus lae
17	108	16.2	185	4 Q15354	Q15354 homo sapien
18	108	16.2	226	4 Q9UF23	Q9uf23 homo sapien
19	105.5	15.8	207	4 Q16528	Q16528 homo sapien

20	105	15.8	210	6 Q29613	Q29613 felis silve
21	104.5	15.7	126	6 Q9BDP7	Q9bdp7 macaca mula
22	104.5	15.7	147	4 Q9UH58	Q9uh58 homo sapien
23	104.5	15.7	171	4 Q9H1W8	Q9h1w8 homo sapien
24	104.5	15.7	174	4 Q9UL23	Q9ul23 homo sapien
25	104.5	15.7	209	4 Q60720	Q60720 homo sapien
26	104.5	15.7	232	4 Q9H1W9	Q9h1w9 homo sapien
27	104.5	15.7	254	4 Q16889	Q16889 homo sapien
28	104	15.6	118	11 Q9CU96	Q9cu96 mus musculus
29	104	15.6	196	11 Q9UL56	Q9ul56 mus musculus
30	102.5	15.4	190	6 Q9XSF3	Q9xsf3 canis famil
31	102.5	15.4	190	6 Q9GL52	Q9gl52 sus scrofa
32	102.5	15.4	208	6 Q9XSF4	Q9xsf4 canis famil
33	102.5	15.4	214	6 Q9XSF5	Q9xsf5 canis famil
34	102.5	15.4	214	6 Q9MYV3	Q9myv3 canis famil
35	102	15.3	188	6 Q9XS48	Q9xs48 bos taurus
36	102	15.3	193	6 Q9XS49	Q9xs49 bos taurus
37	102	15.3	301	5 Q9VWP6	Q9vwp6 drosophila
38	102	15.3	314	5 Q9BLX1	Q9blx1 drosophila
39	101.5	15.2	118	6 Q9M2B1	Q9m2b1 ovis aries
40	101.5	15.2	124	6 Q9GK00	Q9gk00 callithrix
41	101.5	15.2	190	6 Q77643	Q77643 ovis aries
42	101.5	15.2	418	13 Q57352	Q57352 coturnix co
43	101.5	15.2	420	6 Q9XS50	Q9xs50 bos taurus
44	100.5	15.1	144	13 Q73822	Q73822 brachydanio
45	100.5	15.1	188	13 Q73682	Q73682 brachydanio

ALIGNMENTS

RESULT 1
Q9UL22
ID Q9UL22 PRELIMINARY; PRT; 345 AA.
AC Q9UL22;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DE SECRETORY GROWTH FACTOR-LIKE PROTEIN FALLOTEIN (SPINAL CORD-DERIVED GROWTH FACTOR).
DE HSCDGF.
GN Homo sapiens (Human).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RX [1]
RN SEQUENCE FROM N.A.
RP TISSUE=UTERUS;
RC Tsai Y.J., Lee R.K.K., Lin S.P.;
RT "Falloletin, a novel growth factor like gene identified in human uterus.";
RL Submitted (SEP-1998) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=BRAIN;
RX MEDLINE=20317014; PubMed=10858496;
RA Hamada T., Uti-Tel K., Miyata Y.;
RT "A novel gene derived from developing spinal cords, SCDF, is a unique member of the PDGF/VEGF family.";
RL FEBS Lett. 475:97-102(2000).
DR EMBL; AF091434; AA000049.1;
DR EMBL; AB033831; BAB03286.1;
DR InterPro; IPR000859; PDGF.
DR InterPro; IPR000702; PDGF.
DR Pfam; PF00431; CUB; 1.
DR Pfam; PF00341; PDGF; 1.
DR SMART; SM00042; CUB; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS01180; CUB; 1.
DR PROSITE; PS0278; PDGF.2; 1.
SQ SEQUENCE 345 AA; 39029 MW; CDE9E51F40633E78 CRC64;

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Query Match      100.0%; Score 666; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.7e-68;
Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
|||||
Db 226 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 285
|||||

Qy 61 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGSTGG 120
|||||
Db 286 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGSTGG 345
|||||

RESULT 2
Q9NRA1 PRELIMINARY; PRT; 345 AA.
ID Q9NRA1
AC Q9NRA1
DT 01-OCT-2000 (Tremblrel. 15, Created)
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE PLATELET-DERIVED GROWTH FACTOR C.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RA Li X., Ponten A., Aase K., Karlsson L., Abramsson A., Uutela M.,
RA Backstrom G., Hellstrom M., Bostrom H., Li H., Soriano P.,
RA Betscholtz C., Heidn C.-H., Alltalo K., Ostman A., Eriksson U.;
RT "PDGF-C is a novel protease-activated ligand for the PDGF alpha
RT receptor.";
RL Nat. Cell Biol. 0:0-0(2000).
DR EMBL: AF244813; AAF80597.1; -.
DR InterPro: IPR000859; CUB.
DR InterPro: IPR000072; PDGF.
DR Pfam: PF00431; CUB; 1.
DR Pfam: PF00341; PDGF; 1.
DR SMART: SM00042; CUB; 1.
DR SMART: SM00141; PDGF; 1.
DR PROSITE: PS01180; CUB; 1.
DR PROSITE: PS50278; PDGF_2; 1.
SQ SEQUENCE 345 AA; 39043 MW; 590889CEA55CC5EA CRC64;
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```
Query Match      100.0%; Score 666; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.7e-68;
Matches 120; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
|||||
Db 226 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 285
|||||

Qy 61 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGSTGG 120
|||||
Db 286 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGSTGG 345
|||||
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RESULT 3
Q9QY71 PRELIMINARY; PRT; 345 AA.
ID Q9QY71
AC Q9QY71
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE FALLOTIN.
GN PDGFC.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
```

```
RP SEQUENCE FROM N.A.
RC TISSUE=OVARY;
RA Tsai Y.-J., Lee R.K.-K., Chen Y.-H., Lin S.-P., Cheng W.T.-K.;
RT "cDNA cloning of follotein from mouse ovary.";
RL Submitted (JAN-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL: AF117608; AAF22516.1; -.
DR MGD: MGI:1859631; Pdgcfc.
DR InterPro: IPR000859; CUB.
DR InterPro: IPR000072; PDGF.
DR Pfam: PF00431; CUB; 1.
DR SMART: SM00042; CUB; 1.
DR SMART: SM00141; PDGF; 1.
DR PROSITE: PS01180; CUB; 1.
DR PROSITE: PS50278; PDGF_2; 1.
SQ SEQUENCE 345 AA; 38741 MW; 3A58A1F701B84EA2 CRC64;
```

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Query Match      93.7%; Score 624; DB 11; Length 345;
Best Local Similarity 90.8%; Pred. No. 3.5e-63;
Matches 109; Conservative 8; Mismatches 3; Indels 0; Gaps 0;

Qy 1 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
|||||
Db 226 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 285
|||||

Qy 61 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGSTGG 120
|||||
Db 286 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGNAGG 345
|||||
```

```
RESULT 4
Q9EQX6 PRELIMINARY; PRT; 345 AA.
ID Q9EQX6
AC Q9EQX6
DT 01-MAR-2001 (Tremblrel. 16, Created)
DT 01-MAR-2001 (Tremblrel. 16, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE SPINAL CORD-DERIVED GROWTH FACTOR.
GN RSCDGF.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=WISTAR; TISSUE=KIDNEY;
RA Hanada T., Ui-Tei K., Imaki J., Miyata Y.;
RT "Molecular Cloning of SCDF-B, a Novel Growth Factor Homologous to
RT SCDF/PDGF-C/fallotein.";
RL Biochem. Biophys. Res. Commun. 0:0-0(2000).
DR EMBL: AB033830; BAB19969.1; -.
DR InterPro: IPR000859; CUB.
DR InterPro: IPR000072; PDGF.
DR Pfam: PF00431; CUB; 1.
DR SMART: SM00042; CUB; 1.
DR SMART: SM00141; PDGF; 1.
DR PROSITE: PS01180; CUB; 1.
DR PROSITE: PS50278; PDGF_2; 1.
SQ SEQUENCE 345 AA; 38734 MW; F296DA6E9B765D10 CRC64;
```

```
Query Match      91.7%; Score 611; DB 11; Length 345;
Best Local Similarity 89.2%; Pred. No. 1.1e-61;
Matches 107; Conservative 8; Mismatches 5; Indels 0; Gaps 0;

Qy 1 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 60
|||||
Db 226 AFVFGKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGNCA 285
|||||

Qy 61 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGSTGG 120
|||||
Db 286 CCLHNCNECQVPSKVTKKYHEVLQRLPKTGVRGLHKS LTDVALEHHEECDCVCRGNTEG 345
|||||
```

DR	SMART; SW00141; PDGF; 1.
DR	PROSITE; PS01180; CUB; 1.
DR	PROSITE; P50278; PDGF-2; 1.
SQ	SEQUENCE 345 AA; 38940 MW; 97ACEA992BF5128C CRC64;

Query Match 87.8%; Score 585; DB 13; Length 345;
Best Local Similarity 85.0%; Pred. No. 1e-58;
Matches 102; Conservative 11; Mismatches 7; Indels 0; Gaps

QY	1 AFVGRKSRVVDLNLTEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRGGNCNA 60
	::
DB	226 AYHGRKSRVVDLNLKEEVRLYSCTPRNFSVSIREELKRTDTIFWPCLLVKRGGNCNA 285
	::
QY	61 CLLHCNECCVPFSSKYTKYHEVLQLRPKTGVRLGHKSLTDVALEHHEDCDVCRCSTGG 120
DB	286 CCHQCNCECCIPVTKKYHEVLQLKPSRGVRLGHKSLTDPLEHHEDCDVCCKGNSEG 345

RESULT 7

ID	QSDIL8	PRELIMINARY;	PRT;	290 AA.
AC	QSDIL8;			
DT	01-JUN-2001 (TrEMBLrel. 17, Created)			
DT	01-JUN-2001 (TrEMBLrel. 17, Last sequence update)			
DE	01-JUN-2001 (TrEMBLrel. 17, Last annotation.update)			
DE	D110003I09RIK PROTEIN.			
GS	G110003I09RIK.			
OS	Mus musculus (Mouse).			
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.			
OX	NCBI_TaxID=10090;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN=C57BL/6J; TISSUE=EMBRYO;			
RX	MEDLINE=21085660; PubMed=11217851;			
RA	Kawai J., Shingawa A., Shibata K., Yoshino M., Itoh M., Ishii Y., Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S., Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamataka I., Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R., Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T., Fleischmann W., Gaasterland T., Giusti C., King B., Kochiwa H., Kuehl P., Lewis S.J., Matsuo Y., Nikaido I., Pesole G., Quackenbush J., Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., Sakai J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., Blake K., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F., Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P., Nordone P., Ring B., Schoenwald M., Rodriguez I., Sakamoto N., Sasaki H., Sato K., Rheinbach C., Seya T., Shibata Y., Storch K.-P., Suzuki H., Toyoko-oaka K., Wang K.H., Weitz C., Whitaker C., Wilming L., Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., Hayashizaki Y.;			
RT	"Functional annotation of a full-length mouse cDNA collection."			
RL	Nature 409:685-690(2001).			
DR	EMBL; AK003359; BAB22735.1; -.			
DR	MGD; MGI:1919035; l110003i09rik.			
DR	InterPro; IPR000859; CUB.			
DR	InterPro; IPR000072; PDGF.			
DR	Pfam; PF00431; CUB; 1.			
DR	SMART; SM00042; CUB; 1.			
DR	SMART; SM00141; PDGF; 1.			
DR	PROSITE; PS01180; CUB; 1.			
DR	PROSITE; P50278; PDGF-2; 1.			
SQ	SEQUENCE 290 AA; 33425 MW; 14214509E6717D4B CRC64;			

Query Match 48.6%; Score 324; DB 11; Length 290;
Best Local Similarity 52.7%; Pred. No. 5.1e-29;
Matches 59; Conservative 18; Mismatches 31; Indels 4; Gaps

QY	6 RKSRVDNLTLTEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRGGNCACLLHN 65
----	--

Db 174 RKSK-VLDLRLNDVRYSCPTNRHNSVNLREELKLTNAVFPRCLLVQRGGNGCGTGN 232
QY 66 CNECQCVPSKVKYKHYEVLQLRP---KTGVRGLHKSITDVALEHHEECDCVC 114
Db 233 WKSCSSGKTKVKYKHYEVLKFEFGHFKRRGAKNMALVDIQLDHHERCDCIC 284

RESULT 8

Q9BWV5 PRELIMINARY; PRT; 364 AA.
AC Q9BWV5; 01-JUN-2001 (TremBLrel. 17, Created)
DT 01-JUN-2001 (TremBLrel. 17, Last sequence update)
DT 01-JUN-2001 (TremBLrel. 17, Last annotation update)
DE IRIS-EXPRESSED GROWTH FACTOR SHORT FORM.
GN IEGF.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=IRIS;
RA Wistow G.;
RT "Iris-expressed Growth Factor (IEGF).";
RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL: AY027518; AAK20082.1; -
SQ SEQUENCE 364 AA; 42166 MW; 245C53E8DDEA9EAC CRC64;

Query Match 48.6%; Score 324; DB 4; Length 364;
Best Local Similarity 53.6%; Pred. No. 6.5e-29;
Matches 60; Conservative 15; Mismatches 33; Indels 4; Gaps 2;

QY 6 RKSRRVDNLNLTTEVRLYSCPTNRHNSVNLREELKRTDTIFWPGCLLVKRCGGNCACCLHN 65
Db 248 RKSK-VLDLRLNDVRYSCPTNRHNSVNLREELKLTNAVFPRCLLVQRGGNGCGTGN 306
QY 66 CNECQCVPSKVKYKHYEVLQLRP---KTGVRGLHKSITDVALEHHEECDCVC 114
Db 307 WRSCCTNSGKTKVKYKHYEVLQFEFGHFKRRGAKTMALVDIQLDHHERCDCIC 358

RESULT 9

Q9GZP0 PRELIMINARY; PRT; 370 AA.
AC Q9GZP0;
DT 01-MAR-2001 (TremBLrel. 16, Created)
DT 01-MAR-2001 (TremBLrel. 16, Last sequence update)
DT 01-JUN-2001 (TremBLrel. 17, Last annotation update)
DE SPINAL CORD-DERIVED GROWTH FACTOR-B (MSTP036) (IRIS-EXPRESSED GROWTH FACTOR LONG FORM).
GN HSCDGF-B OR IEGF.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Hamada T., Ui-Tei K., Imaki J., Miyata Y.;
RT "Molecular Cloning of SCDGF-B, a Novel Growth Factor Homologous to SCDGF/PDGF-C/fallosein.";
RL Biochem. Biophys. Res. Commun. 0:0-0(2000).
RN [2]
RP SEQUENCE FROM N.A.
RA Hamada T., Ui-Tei K., Imaki J., Miyata Y.;
RT "Molecular Cloning of SCDGF-B, a Novel Growth Factor Homologous to SCDGF/PDGF-C/fallosein.";
RL Biochem. Biophys. Res. Commun. 0:0-0(2000).

QY 6 RKSRRVDNLNLTTEVRLYSCPTNRHNSVNLREELKRTDTIFWPGCLLVKRCGGNCACCLHN 65
Db 248 RKSK-VLDLRLNDVRYSCPTNRHNSVNLREELKLTNAVFPRCLLVQRGGNGCGTGN 312
QY 66 CNECQCVPSKVKYKHYEVLQLRP---KTGVRGLHKSITDVALEHHEECDCVC 114
Db 307 WRSCCTNSGKTKVKYKHYEVLQFEFGHFKRRGAKTMALVDIQLDHHERCDCIC 358

RP SEQUENCE FROM N.A.
RC TISSUE=IRIS;
RA Wistow G.;
RT "Iris-expressed Growth Factor (IEGF).";
RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL: AB033832; BAB18903.1; -
DR EMBL: AF113216; AAG39287.1; -
DR EMBL: AY027517; AAK20081.1; -
DR InterPro: IPR000859; CUB.
DR InterPro: IPR000072; PDGF.
DR InterPro: IPR000531; TonB_box.
DR Pfam: PF00431; CUB; 1.
DR SMART: SM00042; CUB; 1.
DR SMART: SM01141; PDGF; 1.
DR PROSITE: PS01180; CUB; 1.
DR PROSITE: PS0278; PDGF; 2; 1.
DR PROSITE: PS00430; TonB_DEPENDENT_REC; 1; UNKNOWN_1.
SQ SEQUENCE 370 AA; 42848 MW; D387F485E7BB7674 CRC64;

Query Match 48.6%; Score 324; DB 4; Length 370;
Best Local Similarity 53.6%; Pred. No. 6.6e-29;
Matches 60; Conservative 15; Mismatches 33; Indels 4; Gaps 2;

QY 6 RKSRRVDNLNLTTEVRLYSCPTNRHNSVNLREELKRTDTIFWPGCLLVKRCGGNCACCLHN 65
Db 254 RKSK-VLDLRLNDVRYSCPTNRHNSVNLREELKLTNAVFPRCLLVQRGGNGCGTGN 312
QY 66 CNECQCVPSKVKYKHYEVLQLRP---KTGVRGLHKSITDVALEHHEECDCVC 114
Db 313 WRSCCTNSGKTKVKYKHYEVLQFEFGHFKRRGAKTMALVDIQLDHHERCDCIC 364

RESULT 10

Q9EQT1 PRELIMINARY; PRT; 370 AA.
AC Q9EQT1;
DT 01-MAR-2001 (TremBLrel. 16, Created)
DT 01-MAR-2001 (TremBLrel. 16, Last sequence update)
DT 01-JUN-2001 (TremBLrel. 17, Last annotation update)
DE SPINAL-CORD DERIVED GROWTH FACTOR-B.
GN RSCDGF-B.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RA Hamada T., Ui-Tei K., Imaki J., Miyata Y.;
RT "Molecular Cloning of SCDGF-B, a Novel Growth Factor Homologous to SCDGF/PDGF-C/fallosein.";
RL Biochem. Biophys. Res. Commun. 0:0-0(2000).
DR EMBL: AB052170; BAB18920.1; -
DR InterPro: IPR000859; CUB.
DR InterPro: IPR000072; PDGF.
DR Pfam: PF00431; CUB; 1.
DR SMART: SM00042; CUB; 1.
DR SMART: SM01141; PDGF; 1.
DR PROSITE: PS01180; CUB; 1.
DR PROSITE: PS0278; PDGF; 2; 1.
SQ SEQUENCE 370 AA; 42809 MW; 7BE8A251F679BF73 CRC64;

Query Match 48.6%; Score 324; DB 11; Length 370;
Best Local Similarity 52.7%; Pred. No. 6.6e-29;
Matches 59; Conservative 18; Mismatches 31; Indels 4; Gaps 2;

QY 6 RKSRRVDNLNLTTEVRLYSCPTNRHNSVNLREELKRTDTIFWPGCLLVKRCGGNCACCLHN 65
Db 254 RKSK-VLDLRLNDVRYSCPTNRHNSVNLREELKLTNAVFPRCLLVQRGGNGCGTGN 312
QY 66 CNECQCVPSKVKYKHYEVLQLRP---KTGVRGLHKSITDVALEHHEECDCVC 114

Db 313 WKSTCSSGKTVKKYHEVLKFPFGHFKRGKAKNMALVDIQLDHHRCDCIC 364

RESULT 11
Q99JM4
ID Q99JM4 PRELIMINARY; PRT; 34 AA.
AC Q99JM4
DT 01-JUN-2001 (Tremblrel. 17, Created)
DT 01-JUN-2001 (Tremblrel. 17, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE SIMILAR TO PLATELET-DERIVED GROWTH FACTOR, C POLYPEPTIDE (FRAGMENT).
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=MAMMARY TUMOR;
RA Strausberg R.;
RL Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
DR EMBL; BC006027; AAH06027.1;
FT NON_TER 1
SQ SEQUENCE 34 AA; 3618 MW; FAAB6A3A414AED9E CRC64;

Query Match 27.0%; Score 180; DB 11; Length 34;
Best Local Similarity 91.2%; Pred. No. 1.6e-13;
Matches 31; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 87 RPKTGVRLHKLSTDALEHHEECDCVCRGSGG 120
Db 1 RPKTGVRLHKLSTDALEHHEECDCVCRGSGG 34
RESULT 12
O35251
ID O35251 PRELIMINARY; PRT; 326 AA.
AC O35251
DT 01-JAN-1998 (Tremblrel. 05, Created)
DT 01-JAN-1998 (Tremblrel. 05, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR D.
GN VEGF-D.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=SPRAGUE DAWLEY;
RX MEDLINE=97349118; PubMed=9205122;
RA Yamada Y., Nezu J., Shimane M., Hirata Y.;
RT "Molecular cloning of a novel vascular endothelial growth factor,
VEGF-D.";
RL Genomics 42:483-488(1997).
DR EMBL; AF014827; AAB66557.1;
DR HSP; P15692; 1VPP.
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.
DR ProDom; PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS00278; PDGF_2; 1.
SQ SEQUENCE 326 AA; 37112 MW; 1261AFA373596C00 CRC64;

Query Match 18.2%; Score 121.5; DB 11; Length 326;
Best Local Similarity 33.3%; Pred. No. 7.5e-06;
Matches 36; Conservative 15; Mismatches 42; Indels 15; Gaps 6;

Qy 13 LNLTEEVRLYSCPTPRNFSVIREEL-KRTDTIFWPGCLLVKRCGNCACCLHNCQC 71
Db 104 LKVIDEENQRTQCSRETCEVASELGKTTNTFFKPPCVNFRCGG---CC--NEESVMC 158
RESULT 13
O43915
ID O43915 PRELIMINARY; PRT; 354 AA.
AC O43915
DT 01-JUN-1998 (Tremblrel. 06, Created)
DT 01-JUN-1998 (Tremblrel. 06, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE GROWTH FACTOR FIGF.
GN FIGF OR VEGF-D.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Qy 72 V---PSKVTYKRYHEVLQRLPKTGVRLHKLSTDALEHHEECDCVCRG 116
Db 159 MNTSTSVISKQLFEISV--PLTSV---PELVVPKIANHTGCKCLPTG 200
RESULT 13
P97946
ID P97946 PRELIMINARY; PRT; 358 AA.
AC P97946
DT 01-MAY-1997 (Tremblrel. 03, Created)
DT 01-MAY-1997 (Tremblrel. 03, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR D (C-FOS INDUCED GROWTH FACTOR).
GN VEGF-D OR FIGF.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RX MEDLINE=97030254; PubMed=8876195;
RA Ordandini M., Marconcini L., Ferruzzi R., Oliviero S.;
RT "Identification of a c-fos-induced gene that is related to the
platelet-derived growth factor/vascular endothelial growth factor
family.";
RT family.";
RL Proc. Natl. Acad. Sci. U.S.A. 93:11675-11675(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RX MEDLINE=97349118; PubMed=9205122;
RA Yamada Y., Nezu J., Shimane M., Hirata Y.;
RT "Molecular cloning of a novel vascular endothelial growth factor,
VEGF-D.";
RL Genomics 42:483-488(1997).
DR EMBL; X99572; CAA67892.1;
DR EMBL; D89628; BAA14002.1;
DR HSP; P15692; 1VPP.
DR MGI; MGI:108037; Figf.
DR InterPro; IPR000072; PDGF.
DR Pfam; PF00341; PDGF; 1.
DR ProDom; PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS00278; PDGF_2; 1.
SQ SEQUENCE 358 AA; 40908 MW; 6636B17FBF07037C CRC64;

Query Match 17.9%; Score 119.5; DB 11; Length 358;
Best Local Similarity 33.3%; Pred. No. 1.4e-05;
Matches 36; Conservative 15; Mismatches 42; Indels 15; Gaps 6;

Qy 13 LNLTEEVRLYSCPTPRNFSVIREEL-KRTDTIFWPGCLLVKRCGNCACCLHNCQC 71
Db 104 LKVIDEENQRTQCSRETCEVASELGKTTNTFFKPPCVNFRCGG---CC--NEEGVMC 158
RESULT 14
O43915
ID O43915 PRELIMINARY; PRT; 354 AA.
AC O43915
DT 01-JUN-1998 (Tremblrel. 06, Created)
DT 01-JUN-1998 (Tremblrel. 06, Last sequence update)
DT 01-JUN-2001 (Tremblrel. 17, Last annotation update)
DE GROWTH FACTOR FIGF.
GN FIGF OR VEGF-D.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

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OC Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Cleaver O., Tonissen K.F., Saha M.S., Krieg P.A.;
RL Submitted (JUN-1997) to the EMBL/GenBank/DBJ databases.
RX MEDLINE=98140120; PubMed=9479493;
RA Rocchigiani M., Lestingi M., Luddi A., Orlandini M., Franco B.,
RA Rossi E., Ballabio A., Zuffardi O., Oliviero S.;
RT "Human FIGF: cloning, gene structure, and mapping to chromosome Xp22.1
RT between the FIGA and the GRPR genes.";
RL Genomics 47:207-216(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA TISSUE=LUNG;
RC MEDLINE=97349118; PubMed=92051122;
RX Yamada Y., Nezu J., Shimane M., Hirata Y.;
RT "Molecular cloning of a novel vascular endothelial growth factor,
RT VEGF-D.";
RL Genomics 42:483-488(1997).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=98118549; PubMed=9435229;
RA Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vitali A., Wilks A.F.,
RA Allitalo K., Stacker S.A.;
RT "Vascular endothelial growth factor D (VEGF-D) is a ligand for the
RT tyrosine kinases VEGF receptor 2 (Flk1) and VEGF receptor 3 (Flt4).";
RL Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
DR EMBL; Y12864; CAA73371.1; JOINED.
DR EMBL; Y12865; CAA73371.1; JOINED.
DR EMBL; Y12866; CAA73371.1; JOINED.
DR EMBL; Y12867; CAA73371.1; JOINED.
DR EMBL; Y12868; CAA73371.1; JOINED.
DR EMBL; Y12869; CAA73371.1; JOINED.
DR EMBL; Y12870; CAA73371.1; JOINED.
DR EMBL; D89830; BAA24264.1; JOINED.
DR EMBL; AJ000185; CAA03942.1; JOINED.
DR EMBL; Y12863; CAA73370.1; JOINED.
DR HSSP; P15692; 1VPP.
DR InterPro: IPR000072; PDGF.
DR Pfam: PF00341; PDGF; 1.
DR ProDom: PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS02078; PDGF_2; 1.
SQ SEQUENCE 354 AA; 40444 MW; 2048D769D735173E CRC64;

Query Match 17.3%; Score 115.5; DB 4; Length 354;
Best Local Similarity 33.0%; Pred. No. 3.9e-05;
Matches 34; Conservative 14; Mismatches 44; Indels 11; Gaps 5;

Qy 13 LNLTEEVRLVLSCTPRNFSVSIREEL-KRTDTIFWPGCLLVKRCGNCACCLHNCNEC-Q 70
Dy 99 LKVIDEEQRTQCSPRETCVEVASELKGSTNTFFKPCVNVFRCGG---CCNEESLICMN 155
Qy 71 CVPSKVTKKYHEVLQRLPKTVGRLHKSITDVALEHHEECDCV 113
Dy 156 TSTSTISKQLFEISV--PLTSV-----PELVPKVANHTGCKCL 192

RESULT 15
O42571 PRELIMINARY; PRT; 148 AA.
AC O42571;
DT 01-JAN-1998 (TrEMBLrel. 05, Created)
DT 01-JUN-1998 (TrEMBLrel. 05, Last sequence update)
DT 01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR 122.
GN VEGF.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8355;
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RN [1]
RP SEQUENCE FROM N.A.
RA Cleaver O., Tonissen K.F., Saha M.S., Krieg P.A.;
RL Submitted (JUN-1997) to the EMBL/GenBank/DBJ databases.
RX MEDLINE=98140120; PubMed=9479493;
RA Rocchigiani M., Lestingi M., Luddi A., Orlandini M., Franco B.,
RA Rossi E., Ballabio A., Zuffardi O., Oliviero S.;
RT "Human FIGF: cloning, gene structure, and mapping to chromosome Xp22.1
RT between the FIGA and the GRPR genes.";
RL Genomics 47:207-216(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA TISSUE=LUNG;
RC MEDLINE=97349118; PubMed=92051122;
RX Yamada Y., Nezu J., Shimane M., Hirata Y.;
RT "Molecular cloning of a novel vascular endothelial growth factor,
RT VEGF-D.";
RL Genomics 42:483-488(1997).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=98118549; PubMed=9435229;
RA Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vitali A., Wilks A.F.,
RA Allitalo K., Stacker S.A.;
RT "Vascular endothelial growth factor D (VEGF-D) is a ligand for the
RT tyrosine kinases VEGF receptor 2 (Flk1) and VEGF receptor 3 (Flt4).";
RL Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
DR EMBL; Y12864; CAA73371.1; JOINED.
DR EMBL; Y12865; CAA73371.1; JOINED.
DR EMBL; Y12866; CAA73371.1; JOINED.
DR EMBL; Y12867; CAA73371.1; JOINED.
DR EMBL; Y12868; CAA73371.1; JOINED.
DR EMBL; Y12869; CAA73371.1; JOINED.
DR EMBL; Y12870; CAA73371.1; JOINED.
DR EMBL; D89830; BAA24264.1; JOINED.
DR EMBL; AJ000185; CAA03942.1; JOINED.
DR EMBL; Y12863; CAA73370.1; JOINED.
DR HSSP; P15692; 1VPP.
DR InterPro: IPR000072; PDGF.
DR Pfam: PF00341; PDGF; 1.
DR ProDom: PD001629; PDGF; 1.
DR SMART; SM00141; PDGF; 1.
DR PROSITE; PS00249; PDGF_1; 1.
DR PROSITE; PS02078; PDGF_2; 1.
SQ SEQUENCE 148 AA; 17234 MW; 4AD153CA2F8B1E95 CRC64;

Query Match 16.3%; Score 108.5; DB 13; Length 148;
Best Local Similarity 25.8%; Pred. No. 0.0001;
Matches 23; Conservative 21; Mismatches 34; Indels 11; Gaps 4;

Qy 25 CTPRNFSVSIREEL-KRTDTIFWPGCLLVKRCGNCACCLHNCNECQCVPSKVTKKYHEV 83
Dy 52 CQVREILVDIFQEYDPDEVEYIFKPSCVPLMRCAG---CC--NDESLECVPTCYNITMQI 106
Qy 84 LQLRPKTGVRGLHKSITDVALEHHEECDC 112
Dy 107 MKIRPH-----ISQHINDMSFQHSQCEC 130

Search completed: January 15, 2002, 22:21:53
Job time: 255 sec
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373 CTGGTTAAACGCTGGTGGGAACCTGCTGCTTGTCTCCACAATTGCAA 422
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67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
|||||
423 TGAATGTCATGTGTCCTCCAGCAAGATTACTAAAAAATACACAGAGTCC 472
|||||
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
473 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTCACC 522
|||||
101 AspValAlaLeuGluHisGluCysAspCysValCysArgGlySe 117
|||||
523 GACGTGGCCCTGGAGCACCATTGAGGAGTGTGACTGTGTGTCAGAGGGAG 572
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117 rThrGlyGly 120
|||||
573 CACAGGAGGA 582

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seq_name: gb_est2:BG185961

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seq_documentation_block: 811 bp mRNA EST 21-APR-2001
LOCUS BG185961
DEFINITION RST4916 Athersys RAGE Library Homo sapiens cDNA, mRNA sequence.
ACCESSION BG185961
VERSION BG185961.1 GI:13707648
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 811)
AUTHORS Harrington,J.J., Sherf,B., Rundlett,S., Jackson,P.D., Perry,R.,
Cain,S., Dahl,T., Thornton,M., Ramachandran,R., Whittington,J.,
Lerner,L., Krashoc,D., McElligott,K., Clark,S., Mays,R., Smith,E.,
Velooso,N., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J.,
and Ducar,M.
TITLE Creation of Genome-wide Protein Expression Libraries using Random
Activation of Gene Expression
JOURNAL Nat. Biotechnol. 19 (5), 440 (2001) In press
COMMENT Contact: Scott J. Cain
Athersys, Inc.
3201 Carnegie Ave, Cleveland, OH 44115, USA
Tel: 216 431 9900
Fax: 216 361 9596
Email: scain@atersys.com
High quality sequence stop: 485.
FEATURES
source
1. .811
Location/Qualifiers
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="Athersys RAGE Library"
/cell_line="HT1080"
/note="See 'Creation of Genome-wide Protein Expression
Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
BASE COUNT 225 a 172 c 195 g 216 t 3 others
ORIGIN

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alignment_scores:

Quality: 652.00 Length: 120
Ratio: 5.525 Gaps: 0
Percent Similarity: 98.333 Percent Identity: 98.333

alignment_block:

US-09-457-066-2_COPY_226_345 x BG185961 ..

Align seg 1/1 to: BG185961 from: 1 to: 811

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1 AlaPheValPheGlyArgLysSerArgValValAspLeuAsnLeuLeuTh 17
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367 GCITTTTCTTTTGGAGAAAAATCCAGAGTGGTGGATCTGAACCTTCTAAC 416
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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
|||||
417 AGAGGAGGTAAAGATTATACAGCTGCACACCTCGTAACCTTCTCAGTGTCCA 466
|||||
34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50
|||||
467 TAAGGGAAGAACTAAAGAACCCGATACCATTTTCTGGCCAGGTTGTCTC 516
|||||
51 LeuValLysArgCysGlyArgAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
517 CTGTTTAAACGCTGTGCTGGGAACCTGTGCTGTGTCTCCACAATTGCAA 566
|||||
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
|||||
567 TGAATGTCATGTGTCCTCCAGCANAGTTACTAAAAAATACCAACAGGTCC 616
|||||
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
617 TTCAGTTGAGACCAAGACCGGTGTGAGGGGATTGCACAAATCACTCACC 666
|||||
101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117
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667 GACGTGGCCCTGGAGCACCATTGAGAGCTGTGACTGTGTGTCAGAGGGAG 716
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117 rThrGlyGly 120
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717 CACAAGAGGA 726

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seq_name: gb_est2:BF021679

seq_documentation_block:

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LOCUS BF021679 523 bp mRNA EST 29-DEC-2000
DEFINITION uy50f05.y1 NCI CGAP Lu30 Mus musculus cDNA clone IMAGE:3663009 5'
similar to TR:Q9QY71 Q9QY71 FALLOLEIN.; mRNA sequence.
ACCESSION BF021679.
VERSION BF021679.1 GI:10753011
KEYWORDS EST.
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
REFERENCE 1 (bases 1 to 523)
AUTHORS NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
JOURNAL Unpublished (1997)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
CNA Library Preparation: Life Technologies, Inc.
CNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
CNA Sequencing by: Washington University Genome Sequencing Center
Clone Distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
image.llnl.gov/image/html/iresources.shtml

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MGI:1423777

Seq primer: -40RP from Gibco
High quality sequence stop: 452.

FEATURES
source

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/strain="CZECH II"
/db_xref="taxon:10090"
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/clone_lib="NCI CGAP Lu30"
/tissue_type="tumor, metastatic to mammary"
/lab_host="DH10B"
/note="Organ: lung; Vector: pCMV-SPORT6; Site_1: NotI;"

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seq_documentation_block: 556 bp mRNA EST 17-APR-2001
LOCUS BG609411
DEFINITION 323251 MARC 1PTG Sus scrofa cDNA 5', mRNA sequence.
ACCESSION BG609411
VERSION BG609411.1 GI:13659390
KEYWORDS EST.
SOURCE pig.
ORGANISM Sus scrofa
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
1 (bases 1 to 556)
Fahrenkrug,S.C., Freking,B.A., Rohrer,G.A., Smith,T.P.L., Casas,E.,
Stone,R.T., Heaton,M.P., Grosse,W.M., Bennett,G.A., Laegreid,W.W.
and Keeler,J.W.
Design and use of two pooled tissue normalized cDNA libraries for
EST discovery in swine
Unpublished (2000)
CONTACT: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4366
Fax: 402 762 4390
Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 18
and -minmatch 12 options.
PCR Primers
FORWARD: AGGAACACCTATGACCAT
BACKWARD: GTTTCAGTCAGCAGC
Plate: 98 row: P column: 8
Seq primer: ATTTAGTGACACTATAG.
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Library made from pooled tissue from day 11, 13, 15, 20,
and 30 embryos."
BASE COUNT 139 a 153 c 141 g 123 t
ORIGIN
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alignment_scores:
Quality: 620.00 Length: 114
Ratio: 5.487 Gaps: 0
Percent Similarity: 99.123 Percent Identity: 97.368
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US-09-457-066-2_COPY_226_345 x BG609411 ..
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|||||
17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerI 34
|||||
265 AGAAGAGTGAGGCTATACAGTCGACCCCTAGGAACCTTTTCAGTGCTA 314
|||||
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
|||||
315 TCAGGGAAGAGCTGAAGAGAACACACACCATCTTCTGCGCCAGGTCGCTC 364
|||||
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
365 CTCGTCAGCGGTGTGGCGGGAACGTGCGCTGCTGCATGCACACTGCAA 414
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67 nGluCysGlnCysValProSerLysValThrLysLysThrHisGluValL 84
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415 TTGAGTGTCACTGTGTCCCAAGCAAGTCACCAAGAAATATCACAGGTCC 464
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DEFINITION 602625259F1 NCI_CGAP_Skn4 Homo sapiens cDNA clone IMAGE:4750095 5',
mRNA sequence.
ACCESSION BG677432
VERSION BG677432.1 GI:13908829
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 969)
REFERENCE NIH-MGC http://mgc.nci.nih.gov/.
AUTHORS National Institutes of Health, Mammalian Gene Collection (MGC)
TITLE Unpublished (1999)
JOURNAL
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs@mail.nih.gov
Tissue Procurement: James Cleaver, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: L1AM10604 row: f column: 16
High quality sequence stop: 764.
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Location/Qualifiers
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/clone_lib="NCI_CGAP_Skn4"
/tissue_type="squamous cell carcinoma"
/lab_host="DH10B (T1 phage-resistant)"
/note="Organ: skin; Vector: pCMV-SPORT6; Site.1: NotI;
Site.2: SalI; Cloned unidirectionally. Primer: Oligo dt.
Average insert size 1.5kb. Library constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
BASE COUNT 257 a 223 c 221 g 268 t
ORIGIN
..
alignment_scores:
Quality: 617.00 Length: 111
Ratio: 5.559 Gaps: 0
Percent Similarity: 100.000 Percent Identity: 99.099
alignment_block:
US-09-457-066-2_COPY_226_345 x BG677432 ..
Align seg 1/1 to: BG677432 from: 1 to: 969
10 ValValAspLeuAsnLeuLeuThrGluGluValArgLeuTyrSerCysTh 26
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4 GTGGTGATCTGAACCTTCTAACAGAGGAGGTAAGATTATACAGCTGCAC 53
|||||
26 rProArgAsnPheSerValSerIleArgGluGluLeuLysArgThrAspT 43
|||||
54 ACCTCGTAACCTTCTCAGCGTCCATAGGGAAGAACTAAGAGAACCGATA 103
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43 hrIlePheTrpProGlyCysLeuLeuValLysArgCysGlyGlyAsnCys 59
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104 CCATTTCCTGCCAGGTGTCTCTCGTTAAACGCTGGTGGGAACGTGT 153
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60 AlaCysCysLeuHisAsnCysAsnGluCysGlnCysValProSerLysVa 76
|||||
154 GCCTGTTGCTCCCACTTCAATGAATGTCAATGTGCCCAAGCAAGT 203
|||||
76 lThrLysLysTyrHisGluValLeuGlnLeuArgProLysThrGlyVala 93
|||||
204 TACTAAAAAATACCACGAGGTCCTTCACTTGAGACCAAGACCGGTGCA 253
|||||
93 rGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisGluGlu 109
|||||
254 GGGGATTGCACAAATCACTACCGACGTGGCCCTGGAGCACCATGAGGAG 303
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110 CysAspCysValCysArgGlySerThrGlyGly 120
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seq_name: gb_est2:BF151355

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seq_documentation_block:
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DEFINITION uz15b12.y1 NCI_CGAP_Mam5 Mus musculus cDNA clone IMAGE:3669119 5'
similar to TR:09QX71 09QX71 FALLOTEIN. ;, mRNA sequence.
ACCESSION BF151355
VERSION BF151355.1 GI:11032750
KEYWORDS EST.
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus;
1 (bases 1 to 564)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
Unpublished (1997)
JOURNAL
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humphreys
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
image.llnl.gov/image/html/iresources.shtml

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MGI:1429887
Seq primer: -40RP from Gibco
High quality sequence stop: 436.
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Location/Qualifiers
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/strain="C57/B6"
/db_xref="taxon:10090"
/clone="IMAGE:3669119"
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/tissue_type="tumor, gross tissue"
/dev_stage="7 months"
/lab_host="DH10B"
/note="Organ: mammary; Vector: pCMV-SPORT6; Site.1: Sali;
Site.2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Robin Humphreys,
NIH"
BASE COUNT 157 a 130 c 140 g 137 t
ORIGIN

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alignment_scores:
Quality: 590.00 Length: 117
Ratio: 5.221 Gaps: 0
Percent Similarity: 96.581 Percent Identity: 88.889

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alignment_block:

us-09-457-066-2_copy_226_345 x BF151355

Align seg 1/1 to: BF151355 from: 1 to: 564

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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34
|||||
261 GGAAGAGGTAAATCTACAGCTGCACACCCCGGAACCTTCTCAGTGTCCA 310
|||||
34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50
|||||
311 TACGGGAAGAGCTAAAGAGGACAGATACCATATTTCTGCCAGGTTGTCTC 360
|||||
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
361 CTGCTCAAGCGCTGTGGAGGAAATTTGTCCTGTCTCCATAATTGCAA 410
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67 nGluCysGlnCysValProSerLysValThrLysLysLysLysHisGluVal 84
|||||
411 TGAATGTCAGTGTCTCCACGTAAGAGTTACAAAAAAGTACCATGAGTCC 460
|||||
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
461 TTCAGTTGAGACCAAAACATGGAGTCAAGGAGTTGCATAAGTACTCAAT 510
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101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117
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511 GATGTGGCTCTTCAACACCACGAGGAATGTGACTGGGTGTGTAGAGGGAA 560
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seq_documentation_block:

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LOCUS AL047637 304 bp mRNA EST 01-MAR-2000
DEFINITION DKFZp586J0421.r1 586 (synonym: hutel) Homo sapiens cDNA clone
DKFZp586J0421, mRNA sequence.
ACCESSION AL047637
VERSION AL047637.1 GI:4728633
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 304)
Ottenwaelder,B., Obermaier,B., Mewes,H.W., Gassenhuber,J. and
Wiemann,S.
EST (Ottenwaelder, et al.)
Unpublished (1999)
COMMENT Contact: Ottenwaelder B
MIPS
Am Klopferspitz 18a D-82152 Martinsried, Germany
This is the 5' sequence of the clone insert
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de;
sequenced by MedGenomix (Martinsried/Germany) within the cDNA
sequencing consortium of the German Genome Project. No s1 sequence
available.
This clone (DKFZp586J0421) is available at the R2PD in Berlin.
Please contact the R2PD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERMANY; Email: clone@r2pd.de.

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FEATURES

source

REFERENCE

AUTHORS

TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

VERSION

ACCESSION

DEFINITION

LOCUS

seq_documentation_block:

seq_name: gb_est1:AL047637

117 r 117

511 GATGTGGCTCTTCAACACCACGAGGAATGTGACTGGGTGTGTAGAGGGAA 560

411 TGAATGTCAGTGTCTCCACGTAAGAGTTACAAAAAAGTACCATGAGTCC 460

67 nGluCysGlnCysValProSerLysValThrLysLysLysLysHisGluVal 84

361 CTGCTCAAGCGCTGTGGAGGAAATTTGTCCTGTCTCCATAATTGCAA 410

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

311 TACGGGAAGAGCTAAAGAGGACAGATACCATATTTCTGCCAGGTTGTCTC 360

34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50

261 GGAAGAGGTAAATCTACAGCTGCACACCCCGGAACCTTCTCAGTGTCCA 310

17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34

211 GCCTTCCTGTATGGGAAAAAAGCAAAGTGGTGAATCTGAATCTCCTCAA 260

1 AlaPheValPheGlyArgLysSerArgValValAspLeuAsnLeuLeuTh 17

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LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

SOURCE

ORGANISM

REFERENCE

AUTHORS

TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

VERSION

ACCESSION

DEFINITION

LOCUS

seq_documentation_block:

seq_name: gb_est1:AL047637

117 r 117

511 GATGTGGCTCTTCAACACCACGAGGAATGTGACTGGGTGTGTAGAGGGAA 560

411 TGAATGTCAGTGTCTCCACGTAAGAGTTACAAAAAAGTACCATGAGTCC 460

67 nGluCysGlnCysValProSerLysValThrLysLysLysLysHisGluVal 84

361 CTGCTCAAGCGCTGTGGAGGAAATTTGTCCTGTCTCCATAATTGCAA 410

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

311 TACGGGAAGAGCTAAAGAGGACAGATACCATATTTCTGCCAGGTTGTCTC 360

34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50

261 GGAAGAGGTAAATCTACAGCTGCACACCCCGGAACCTTCTCAGTGTCCA 310

17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34

211 GCCTTCCTGTATGGGAAAAAAGCAAAGTGGTGAATCTGAATCTCCTCAA 260

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us-09-457-066-2_copy_226_345 x BF151355

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LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

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ORGANISM

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AUTHORS

TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

VERSION

ACCESSION

DEFINITION

LOCUS

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361 CTGCTCAAGCGCTGTGGAGGAAATTTGTCCTGTCTCCATAATTGCAA 410

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

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34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50

261 GGAAGAGGTAAATCTACAGCTGCACACCCCGGAACCTTCTCAGTGTCCA 310

17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34

211 GCCTTCCTGTATGGGAAAAAAGCAAAGTGGTGAATCTGAATCTCCTCAA 260

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alignment_block:

seq_name: gb_est1:AL047637

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LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

SOURCE

ORGANISM

REFERENCE

AUTHORS

TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

VERSION

ACCESSION

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LOCUS

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67 nGluCysGlnCysValProSerLysValThrLysLysLysLysHisGluVal 84

361 CTGCTCAAGCGCTGTGGAGGAAATTTGTCCTGTCTCCATAATTGCAA 410

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

311 TACGGGAAGAGCTAAAGAGGACAGATACCATATTTCTGCCAGGTTGTCTC 360

34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50

261 GGAAGAGGTAAATCTACAGCTGCACACCCCGGAACCTTCTCAGTGTCCA 310

17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34

211 GCCTTCCTGTATGGGAAAAAAGCAAAGTGGTGAATCTGAATCTCCTCAA 260

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us-09-457-066-2_copy_226_345 x BF151355

alignment_block:

seq_name: gb_est1:AL047637

seq_documentation_block:

LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

SOURCE

ORGANISM

REFERENCE

AUTHORS

TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

VERSION

ACCESSION

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411 TGAATGTCAGTGTCTCCACGTAAGAGTTACAAAAAAGTACCATGAGTCC 460

67 nGluCysGlnCysValProSerLysValThrLysLysLysLysHisGluVal 84

361 CTGCTCAAGCGCTGTGGAGGAAATTTGTCCTGTCTCCATAATTGCAA 410

51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67

311 TACGGGAAGAGCTAAAGAGGACAGATACCATATTTCTGCCAGGTTGTCTC 360

34 leArgGluGluLeuLysArgThrAspThrIlePheTppProGlyCysLeu 50

261 GGAAGAGGTAAATCTACAGCTGCACACCCCGGAACCTTCTCAGTGTCCA 310

17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34

211 GCCTTCCTGTATGGGAAAAAAGCAAAGTGGTGAATCTGAATCTCCTCAA 260

1 AlaPheValPheGlyArgLysSerArgValValAspLeuAsnLeuLeuTh 17

us-09-457-066-2_copy_226_345 x BF151355

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seq_documentation_block:

LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

SOURCE

ORGANISM

REFERENCE

AUTHORS

TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

VERSION

ACCESSION

DEFINITION

LOCUS

seq_documentation_block:

seq_name: gb_est1:AL047637

117 r 117

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411 TGAATGTCAGTGTCTCCACGTAAGAGTTACAAAAAAGTACCATGAGTCC 46

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 /tissue_type="uterus"
 /dev_stage="adult"
 /lab_host="DH10B"
 /note="Vector: pSport1; Site_1: NotI; Site_2: SalI/MLuI"
 BASE COUNT 86 a 68 c 80 g 70 t
 ORIGIN

alignment_scores:
 Quality: 568.00 Length: 101
 Ratio: 5.624 Gaps: 0
 Percent Similarity: 100.000 Percent Identity: 99.010

alignment_block:
 US-09-457-066-2_COPY_226_345 x AL047637 ..

Align seg 1/1 to: AL047637 from: 1 to: 304

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|||||
2 GAGGAGGTAAAGTATACAGCTGCACACTCGTAACCTCTCAGTGCCAT 51
|||||
34 eArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeuL 51
|||||
52 AAGGGAAGAACTAAAGAGACCGATACCATTTCTGGCCAGGTGTCTCC 101
|||||
51 euValLysArgCysGlyAsnCysAlaCysCysLeuHisAsnCysAsn 67
|||||
102 TGGTTAAACGCTGTGGTGGGAACGTGCTGTCTCCACAATTGCAAT 151
|||||
68 GluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
|||||
152 GAATGTCATGTGTCCCAAGCAAGTTACTAAAAATACCCAGGTCCT 201
|||||
84 uGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuTh 101
|||||
202 TCAGTTGAGACCAAGACCGGTGTGAGGGATTGCACAAATCACTCAC 251
|||||
101 spValAlaLeuGluHisGluCysAspCysValCysArgGlySer 117
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252 ACGTGGCCCTGGAGCACCATGAGGAGTGTGCTGTGTCAGAGGGAGC 301
|||||
118 Thr 118
:::
302 TCA 304

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seq_name: gb_est2:BG243001

seq_documentation_block:
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 DEFINITION 60235974F1 NCI_CGAP_MamI Mus musculus cDNA clone IMAGE:4483938 5',
 mRNA sequence.

ACCESSION BG243001
 VERSION BG243001.1 GI:12752725
 KEYWORDS EST.
 SOURCE house mouse.
 ORGANISM Mus musculus

REFERENCE
 AUTHORS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 JOURNAL Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
 COMMENT NIH-MGC <http://mgi.nci.nih.gov/>.
 Unpublished (1999)
 Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-remail.nih.gov
 Tissue procurement: Gilbert Smith, Ph.D.
 CDNA library preparation: Life Technologies, Inc.
 DNA Sequencing by: The I.M.A.G.E. Consortium (LNL)
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
<http://image.lnl.gov>

Plate: LLAM10323 row: d column: 19
 High quality sequence stop: 690.
 Location/Qualifiers
 1. 910
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 /strain="FVB/N"
 /db_xref="taxon:10090"
 /clone="IMAGE:4483938"
 /clone_lib="NCI_CGAP_MamI"
 /tissue_type="tumor, biopsy sample"
 /dev_stage="3 months, virgin"
 /lab_host="DH10B"
 /note="organ: mammary; Vector: pCMV-SPORT6; Site_1: SalI;
 Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT.
 Library constructed by Life Technologies. Investigator
 providing samples: Gilbert Smith, NIH"

FEATURES
 source

BASE COUNT 242 a 220 c 250 g 198 t
 ORIGIN

alignment_scores:
 Quality: 566.00 Length: 120
 Ratio: 4.838 Gaps: 0
 Percent Similarity: 97.500 Percent Identity: 90.000
 alignment_block:
 US-09-457-066-2_COPY_226_345 x BG243001 ..

Align seg 1/1 to: BG243001 from: 1 to: 910

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1 AlapheValPheGlyArgLysSerArgValValAspLeuAsnLeuLeuTh 17
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155 GCCTTCTGTATGGGAAAAAAGCAAGTGTGAATCTGAATCTCCCAA 204
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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPheserValSerI 34
|||||
205 GGAAGAGGTAAACTCTACAGCTGCACACCCCGAACTTCTCAGTGCCA 254
|||||
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
|||||
255 TACGGGAAGAGCTAAAGAGGACAGATACCATATTCTGGCCAGGTTGTCT 304
|||||
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
305 CTGCTCAAGCGCTGTGGAGAAA..TGTGCTGTGTCTCCATTAATTGCAA 353
|||||
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
|||||
354 TGAATGTCAGTGTGCCCGTAAAGTTACAAAAAGTACCATGAGGTCC 403
|||||
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThr 100
|||||
404 TTCAGTTGAGACCAAAACTGA..GTCAAGGAGATTGCATAAGTCACTCACT 452
|||||
101 AspValAlaLeuGluHisGluGluCysAspCysValCysArgGlySe 117
|||||
453 GATGTGGCTCTGGAAACACCACAGGAATGACTGTGTGTGTAGAGGAAA 502
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117 rThrGlyGly 120
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503 CGCAGGAGGG 512

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seq_name: gb_est2:BF102859

seq_documentation_block:
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 DEFINITION 601646827F1 NIH_MGC_60 Homo sapiens cDNA clone IMAGE:4073095 5',
 mRNA sequence.
 ACCESSION BF102859
 VERSION BF102859.1 GI:10885385
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens


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3 ACACCTCGTAACTTCTCAGTGTCCATAGGGAAGAACTAAAGAGAACCGA 52
42 pThrIlePheTrpProGlyCysLeuLeuValLysArgCysGlyGlyAsnC 59
|||||
53 TACCATTTCTGGCCAGGTTGTCTCTGTTAAACGCTGTGGTGGAACT 102
|||||
59 ysaLaCysCysLeuHisAsnCysAsnGluCysGlnCysValProSerLys 75
|||||
103 GTGCCTGCTGCTCTCACAAATGCAATGAATGTCATGTGTCCCAAGCAA 152
|||||
76 ValThrLysLysTyrHisGluValLeuGlnLeuArgProLysThrGlyVa 92
|||||
153 GTTACTAAAAAATACCGAGGCTCTTCAGTTGACCAACACCGGCT 202
|||||
92 lArgGlyLeuHisLysSerLeuThrAspValAlaLeuGluHisGluG 109
|||||
203 CAGGGATTGCACAANTCACTACCGAGCTGGCCCTGGAGCACAATGAGG 252
|||||
109 luCysAspCysValCysArgGlySerThrGlyGly 120
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253 AGTGTGACTGTGTGCAGAGGAGCACAGGAGGA 287
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seq_name: gb_est2:BF011835

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LOCUS BF011835 447 bp mRNA EST 06-OCT-2000
DEFINITION us37d10.y1 Soares_NMEBA_branchial_arch Mus musculus cDNA clone
IMAGE:3169267 5' similar to TR:09Q171 Q9Q171 FALLOTEIN. ;, mRNA
sequence.
ACCESSION BF011835
VERSION BF011835.1 GI:10712110
KEYWORDS EST.
SOURCE house mouse.
ORGANISM Mus musculus
REFERENCE 1 (bases 1 to 447)
AUTHORS NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
JOURNAL Unpublished (1997)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima Bonaldo
, Ph.D.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
image.llnl.gov/image/html/iresources.shtml

MGI:1064727
Seq primer: -40RP from Gibco
High quality sequence stop: 402.
FEATURES
Location/Qualifiers
1..447
/organism="Mus musculus"
/db_xref="taxon:10090"
/clone="IMAGE:3169267"
/clone_lib="Soares_NMEBA_branchial_arch"
/tissue_type="branchial arches"
/dev_stage="embryo, 10.5 dpc"
/lab_host="DH10B (phage resistant)"
/note="Vector: pT7D-Pac (Pharmacia) with a modified
polylinker; Site_1: NotI; Site_2: EcoRI; 1st strand cDNA
was primed with a Not I - oligo(dT) primer [5',
TGTACCAATCTGAAGTGGAGCGCGCATGCATTTTTTTTTTTTTT
3']; double-stranded cDNA was ligated to Eco RI adaptors
(Pharmacia), digested with Not I and cloned into the Not
I and Eco RI sites of the modified pT73 vector. Library
constructed and normalized by Bento Soares and M.Fatima
Bonaldo."
BASE COUNT 126 a 104 c 108 g 109 t

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ORIGIN
alignment_scores:
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Ratio: 5.245 Gaps: 0
Percent Similarity: 98.000 Percent Identity: 91.000
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US-09-457-066-2_COPY_226_345 x BF011835
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17 rGluGluValArgLeuTyrSerCysThrProArgAsnPhSerValserI 34
|||||
198 GGAAGAGGTAAAACTCTACAGCTGCACACCCCGAACTTCTCAGTGTCCA 247
|||||
34 leArgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeu 50
|||||
248 TACGGGAAGAGCTAAAGAGACAGATACCATAATCTGGCAGGTTGTCTC 297
|||||
51 LeuValLysArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAs 67
|||||
298 CTGGTCAACGCTGTGGAGAAATGTGCTGTGTCTCCATAATGTGCAA 347
|||||
67 nGluCysGlnCysValProSerLysValThrLysLysTyrHisGluVal 84
|||||
348 TGAATGTCAAGTGTCTCCACGTAAGTTACAAAAAGTACCATGAGGTCC 397
|||||
84 euGlnLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuTh 100
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398 TTCAGTTGAGCAAAAACCTGGAGTCAAGGATTGCATAAATCACTCACT 447
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seq_name: gb_est2:BF670092

seq_documentation_block:
LOCUS BF670092 874 bp mRNA EST 21-DEC-2000
DEFINITION 602119417F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276493 5',
mRNA sequence.
ACCESSION BF670092
VERSION BF670092.1 GI:11943987
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 874)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: CLONETECH Laboratories, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LICM1097 row: a column: 06
High quality sequence stop: 598.
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Location/Qualifiers
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/db_xref="taxon:9606"
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/clone_lib="NIH_MGC_56"
/tissue_type="primitive neuroectoderm"
/lab_host="DH10B (T1 phage-resistant)"

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/note="Organ: brain; Vector: pDNR-LIB (Clontech); Site_1: Sfil (ggccctggcc); Site_2: Sfil (ggccattatggcc); Double-stranded cDNA was prepared from cell line RNA. 5' and 3' adaptors were used in cloning as follows: 5' adaptor sequence: 5'-CAGGCCATTATGCG-3' and 3' adaptor sequence: 5'-ATTCTAGAGCGCGGCGCCACATG-dT(30)BN-3' (where B = A, C, G and N = A, C, G, or T). Average insert size 1.65 kb (range 0.9-4.0 kb). 15/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Palo Alto, CA)."

BASE COUNT 227 a 208 c 245 g 194 t
ORIGIN

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Quality: 463.00 Length: 122
Ratio: 4.287 Gaps: 8
Percent Similarity: 88.525 Percent Identity: 86.885

alignment_block:
US-09-457-066-2_COPY_226_345 x BF670092

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77 GGAAGAAATCCAGAGTGGTGGATCTGAACCTCTTAACAGAGGAGTAAG 126

21 gLeu..TyrSerCysThrProArgAsnPheSerValSerIleArg.GluG 37
|||||
127 ATTATAGCATGCTGCACACCTCGTAACCTCTCAGTGTCCATAATGGGAAG 176

37 LuLeuLysArgThrAspThrIle.PhetrpProGlyCysLeuLeuVally 53
|||||
177 AACTAAGAAACCGATGACCATGTTCTGCGCAGGTGTCTCCTGGTTAA 226

53 sArgCysGlyGlyAsnCysAlaCysCysLeuHisAsnCysAsnGluCysG 70
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227 ACGCTGTGGTGGGAACGTGCTGCTGCTCCACAAATGCAATGAATGTC 276

70 In.CysValProSerLysValThrLysLysTyrHis.GluValLeuInL 86
|||||
277 AAGTGTGTCCCAAGCAAGTGTACTTAAAAATACCAGCGAGGTCTCAGT 326

86 euArgProLysThrGlyValArgGlyLeuHisLysSerLeuThrAspVal 102
|||||
327 TGACCAACAAAGACCGGTGTACGGGGATGGTCACAAATCACTCACCAGCGT 376

103 AlaLeuGluHis.HisGlu.GluCysAspCys.ValCysArgGlySerTh 118
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377 GCCCTGAGCAGCATGAGAGTGTGACTGTGTGTGTCAGAGGGAGGCAC 426

118 r 118
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427 A 427

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DEFINITION 602348280F1 NIH_MGC_90 Homo sapiens cDNA clone IMAGE:4443498 5',
mRNA sequence.

ACCESSION BG118707

VERSION BG118707.1 GI:12612213

KEYWORDS EST.

SOURCE human.

ORGANISM

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 968)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL COMMENT

Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgabbs-r@mail.nih.gov
Tissue Procurement: ATCC

CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>

Plate: L1AM10217 row: o column: 19
High quality sequence start: 8
High quality sequence stop: 574.

FEATURES

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/clone_lib="NIH_MGC_90"
/tissue_type="adenocarcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/note="Organ: liver; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally; oligo-dT primed.
Average insert size 1.7 kb. Library enriched for full-length clones and constructed by Life Technologies.
Note: this is a NIH_MGC Library."
BASE COUNT 313 a 230 c 219 g 206 t
ORIGIN

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Percent Similarity: 76.471 Percent Identity: 76.471

alignment_block:
US-09-457-066-2_COPY_226_345 x BG118707

Align seg 1/1 to: BG118707 from: 1 to: 968

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224 TTTGTTTGGAGAAATCCAGATCGTGGATCTGAACCTCTTAACAGA 273

18 uGluValArgLeuTyrSerCysThrProArgAsnPheSerValSerIle 35
|
274 GGA..... 276

35 rgGluGluLeuLysArgThrAspThrIlePheTrpProGlyCysLeuLeu 51
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277GGTTGCTCTCTG 288

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68 uCysGlnCysValProSerLysValThrLysLysTyrHisGluValLeuG 85
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339 ATGTCAATGTGTCACCAAGCAAGTTACTAAAAAATACCACGAGGCTCTTC 388

85 InLeuArgProLysThrGlyValArgGlyLeuHisLysSerLeuThrAsp 101
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389 AGTTGAGACCAAGACCGGTGTGAGGGGATTCACAAATCCTCCACCGAC 438

102 ValAlaLeuGluHisHisGluGluCysAspCysValCysArgGlySerTh 118
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439 GTGGC.CTGGAGCACCATGAGGAGTGTGACTGTGTGTGCAGAGGGAGCAC 487

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seq_name: gb_gss:CNS024MX

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seq_documentation_block:
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DEFINITION Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone
            235A22 of library G from Tetraodon nigroviridis, genomic survey
            sequence.
ACCESSION  AL180978
VERSION    AL180978.1 GI:7819035
KEYWORDS   GSS: genome survey sequence.
SOURCE     Tetraodon nigroviridis.
ORGANISM   Tetraodon nigroviridis.
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
            Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
            Tetraodontidae; Tetraodon.
REFERENCE  1 (bases 1 to 877)
AUTHORS    Roest-Crolius,H., Jaillon,O., Dasilva,C., Fizames,C., Fisher,C.,
            Bouneau,L., Billault,A., Quetier,F., Saurin,W., Bernot,A. and
            Weissenbach,J.
TITLE      Characterization and repeat analysis of the compact genome of the
            freshwater pufferfish Tetraodon nigroviridis
JOURNAL    Unpublished
REFERENCE  2 (bases 1 to 877)
AUTHORS    Roest-Crolius,H., Jaillon,O., Dasilva,C., Bouneau,L., Fisher,C.,
            Bernot,A., Fizames,C., Wincker,P., Brottier,P., Quetier,F.,
            Saurin,W. and Weissenbach,J.
TITLE      Human gene number estimate provided by genome wide analysis using
            Tetraodon nigroviridis DNA sequence
JOURNAL    Unpublished
REFERENCE  3 (bases 1 to 877)
AUTHORS    Direct Submission
TITLE      Submitted (12-APR-2000) to the EMBL/GenBank/DBJ databases
JOURNAL    This sequence is a single read and was generated as part of a large
COMMENT     scale clone-end sequencing project of the Tetraodon nigroviridis
            genome. For more information, please take a look at
            http://www.genoscope.cns.fr/Tetraodon.

FEATURES             Location/Qualifiers
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                        /clone_lib="G"
                        /note="Genoscope sequence ID : COAG235BAllSP1-end :
                        PUC-Ori"
BASE COUNT  229 a   207 c   188 g   248 t     5 others
ORIGIN

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Ratio: 4.223         Gaps: 1
Percent Smilarity: 45.631 Percent Identity: 38.350

alignment_block:
US-09-457-066-2_COPY_226_345 x CNS024MX/rev ..
Align seg 1/1 to reverse of: CNS024MX from: 1 to: 877

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|||||  :|||||
657 AATCTGCTGAGGATGAAGTGCAGCTGTACAGCTGCACACGCGCACTT 608
|||||  :|||||

30 eSerValSerIleArgGluLeuLeuLysArgThrAspThrIlePheTrp 47
|||||  :|||||
607 CTCTGTCTCTTTCGCTGAGGAGTGAAGAGACCGATGTAATTTCTGGC 558
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47 roGlyCysLeuLeuValLysArgCysGlyGlyAsnCysAlaCysLeu 63
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557 CAAGTGCCTCCTGGTGAATCGTGTGGCGGAAACGCGCTGCTGCTCT 508
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64 HisAsnCysAsnGluCysGlnCysValProSerLysValThrLysLysTy 80
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110 CysAspCysValCysArg 115
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